

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

May 13, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 04/12/2011

Group Number: 1241643

SDG: DX068

PO Number: 1203-004-008-AL

Release Number: TRACKING #12090

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
DUP01-SA8N-QC-041111 Soil	6255801
SL-001-SA8N-SS-0.0-0.5 Soil	6255802
SL-002-SA8N-SS-0.0-0.5 Soil	6255803
SL-003-SA8N-SS-0.0-0.5 Soil	6255804
SL-004-SA8N-SS-0.0-0.5 Soil	6255805
SL-005-SA8N-SS-0.0-0.5 Soil	6255806
SL-006-SA8N-SS-0.0-0.5 Soil	6255807
SL-007-SA8N-SS-0.0-0.5 Soil	6255808
SL-008-SA8N-SS-0.0-0.5 Soil	6255809
SL-009-SA8N-SS-0.0-0.5 Soil	6255810
SL-010-SA8N-SS-0.0-0.5 Soil	6255811
SL-011-SA8N-SS-0.0-0.5 Soil	6255812
SL-013-SA8N-SS-0.0-0.5 Soil	6255813
SL-013-SA8N-SS-0.0-0.5MS Soil	6255814
SL-013-SA8N-SS-0.0-0.5MSD Soil	6255815
SL-014-SA8N-SS-0.0-0.5 Soil	6255816
SL-017-SA8N-SS-0.0-0.5 Soil	6255817
SL-049-SA8N-SS-0.0-0.5 Soil	6255818

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

Attn: Todd Burgess

COPY TO
ELECTRONIC Data Package Group
COPY TO

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP01-SA8N-QC-041111 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8N-QC-041111

LLI Sample # SW 6255801
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

DDP01 SDG#: DX068-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	14.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8N-QC-041111 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8N-QC-041111

LLI Sample # SW 6255801
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

DDP01 SDG#: DX068-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0869 JQ	0.0363	1.16	1
11031	12378-PeCDD	40321-76-4	0.229 JBQ	0.0428	5.82	1
11031	123478-HxCDD	39227-28-6	0.396 JQ	0.0389	5.82	1
11031	123678-HxCDD	57653-85-7	1.60 JB	0.0381	5.82	1
11031	123789-HxCDD	19408-74-3	0.741 JB	0.0357	5.82	1
11031	1234678-HpCDD	35822-46-9	44.9 B	0.0644	5.82	1
11031	OCDD	3268-87-9	462 B	0.0440	11.6	1
11031	2378-TCDF	51207-31-9	0.250 JQ	0.0748	1.16	1
11031	12378-PeCDF	57117-41-6	0.372 JB	0.0329	5.82	1
11031	23478-PeCDF	57117-31-4	0.542 JB	0.0317	5.82	1
11031	123478-HxCDF	70648-26-9	3.07 JB	0.0521	5.82	1
11031	123678-HxCDF	57117-44-9	0.534 JB	0.0380	5.82	1
11031	123789-HxCDF	72918-21-9	0.302 JB	0.0289	5.82	1
11031	234678-HxCDF	60851-34-5	0.594 JB	0.0277	5.82	1
11031	1234678-HpCDF	67562-39-4	5.55 JB	0.0362	5.82	1
11031	1234789-HpCDF	55673-89-7	0.433 JB	0.0266	5.82	1
11031	OCDF	39001-02-0	8.03 JB	0.0234	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	55	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	56	28 - 143
13C12-1234789-HpCDF	88	26 - 138
13C12-OCDF	92	17 - 157
13C12-1278-TCDD (CRS)	90	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration

Sample Description: DUP01-SA8N-QC-041111 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8N-QC-041111

LLI Sample # SW 6255801
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

DDP01 SDG#: DX068-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: DUP01-SA8N-QC-041111 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8N-QC-041111

LLI Sample # SW 6255801
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

DDP01 SDG#: DX068-01FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11103001	04/16/2011 00:25	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11103001	04/13/2011 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-001-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8N-SS-0.0-0.5

LLI Sample # SW 6255802
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD001 SDG#: DX068-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	20.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8N-SS-0.0-0.5

LLI Sample # SW 6255802
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD001 SDG#: DX068-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0306 JQ	0.0253	1.23	1
11031	12378-PeCDD	40321-76-4	0.116 JB	0.0360	6.17	1
11031	123478-HxCDD	39227-28-6	0.101 JQ	0.0272	6.17	1
11031	123678-HxCDD	57653-85-7	0.281 JBQ	0.0273	6.17	1
11031	123789-HxCDD	19408-74-3	0.225 JBQ	0.0241	6.17	1
11031	1234678-HpCDD	35822-46-9	4.19 JB	0.0277	6.17	1
11031	OCDD	3268-87-9	30.4 B	0.0204	12.3	1
11031	2378-TCDF	51207-31-9	0.0890 U	0.0890	1.23	1
11031	12378-PeCDF	57117-41-6	0.0332 U	0.0332	6.17	1
11031	23478-PeCDF	57117-31-4	0.791 JB	0.0343	6.17	1
11031	123478-HxCDF	70648-26-9	1.34 JB	0.0368	6.17	1
11031	123678-HxCDF	57117-44-9	0.198 JB	0.0276	6.17	1
11031	123789-HxCDF	72918-21-9	0.142 JB	0.0228	6.17	1
11031	234678-HxCDF	60851-34-5	0.239 JBQ	0.0214	6.17	1
11031	1234678-HpCDF	67562-39-4	0.824 JB	0.0152	6.17	1
11031	1234789-HpCDF	55673-89-7	0.117 JB	0.0145	6.17	1
11031	OCDF	39001-02-0	1.23 JB	0.0212	12.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	42	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	60	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	77	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-001-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8N-SS-0.0-0.5

LLI Sample # SW 6255802
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD001 SDG#: DX068-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-001-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8N-SS-0.0-0.5

LLI Sample # SW 6255802
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD001 SDG#: DX068-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11103001	04/16/2011 16:05	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11103001	04/13/2011 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-002-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA8N-SS-0.0-0.5

LLI Sample # SW 6255803
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD002 SDG#: DX068-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	19.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA8N-SS-0.0-0.5

LLI Sample # SW 6255803
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD002 SDG#: DX068-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0245 U	0.0245	1.24	1
11031	12378-PeCDD	40321-76-4	0.227 JB	0.0401	6.18	1
11031	123478-HxCDD	39227-28-6	0.217 JB	0.0297	6.18	1
11031	123678-HxCDD	57653-85-7	0.626 JB	0.0314	6.18	1
11031	123789-HxCDD	19408-74-3	0.462 JB	0.0306	6.18	1
11031	1234678-HpCDD	35822-46-9	11.3 B	0.0466	6.18	1
11031	OCDD	3268-87-9	95.4 B	0.0576	12.4	1
11031	2378-TCDF	51207-31-9	0.434 JB	0.0809	1.24	1
11031	12378-PeCDF	57117-41-6	2.88 JB	0.0325	6.18	1
11031	23478-PeCDF	57117-31-4	0.0343 U	0.0343	6.18	1
11031	123478-HxCDF	70648-26-9	0.648 JB	0.0265	6.18	1
11031	123678-HxCDF	57117-44-9	0.255 JB	0.0240	6.18	1
11031	123789-HxCDF	72918-21-9	0.152 JBQ	0.0309	6.18	1
11031	234678-HxCDF	60851-34-5	0.230 JB	0.0252	6.18	1
11031	1234678-HpCDF	67562-39-4	1.27 JB	0.0170	6.18	1
11031	1234789-HpCDF	55673-89-7	0.116 JBQ	0.0250	6.18	1
11031	OCDF	39001-02-0	2.03 JB	0.0440	12.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	47	17 - 157
13C12-1278-TCDD (CRS)	90	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-002-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA8N-SS-0.0-0.5

LLI Sample # SW 6255803
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD002 SDG#: DX068-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-002-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA8N-SS-0.0-0.5

LLI Sample # SW 6255803
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD002 SDG#: DX068-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 16:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8N-SS-0.0-0.5

LLI Sample # SW 6255804
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD003 SDG#: DX068-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	19.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8N-SS-0.0-0.5

LLI Sample # SW 6255804
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD003 SDG#: DX068-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0226 U	0.0226	1.23	1
11031	12378-PeCDD	40321-76-4	0.122 JBQ	0.0404	6.16	1
11031	123478-HxCDD	39227-28-6	0.188 JBQ	0.0241	6.16	1
11031	123678-HxCDD	57653-85-7	0.431 JB	0.0250	6.16	1
11031	123789-HxCDD	19408-74-3	0.294 JB	0.0251	6.16	1
11031	1234678-HpCDD	35822-46-9	6.26 B	0.0417	6.16	1
11031	OCDD	3268-87-9	42.1 B	0.0381	12.3	1
11031	2378-TCDF	51207-31-9	0.0861 U	0.0861	1.23	1
11031	12378-PeCDF	57117-41-6	2.70 JB	0.0345	6.16	1
11031	23478-PeCDF	57117-31-4	0.508 JB	0.0350	6.16	1
11031	123478-HxCDF	70648-26-9	0.550 JB	0.0272	6.16	1
11031	123678-HxCDF	57117-44-9	0.182 JB	0.0246	6.16	1
11031	123789-HxCDF	72918-21-9	0.0741 JBQ	0.0296	6.16	1
11031	234678-HxCDF	60851-34-5	0.214 JB	0.0236	6.16	1
11031	1234678-HpCDF	67562-39-4	0.719 JB	0.0139	6.16	1
11031	1234789-HpCDF	55673-89-7	0.0862 JBQ	0.0208	6.16	1
11031	OCDF	39001-02-0	0.967 JBQ	0.0366	12.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	95	28 - 130
13C12-123789-HxCDD	91	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	50	17 - 157
13C12-1278-TCDD (CRS)	90	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-003-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8N-SS-0.0-0.5

LLI Sample # SW 6255804
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD003 SDG#: DX068-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-003-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8N-SS-0.0-0.5

LLI Sample # SW 6255804
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD003 SDG#: DX068-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 17:30	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-004-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA8N-SS-0.0-0.5

LLI Sample # SW 6255805
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD004 SDG#: DX068-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-004-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA8N-SS-0.0-0.5

LLI Sample # SW 6255805
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD004 SDG#: DX068-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0182 U	0.0182	1.13	1
11031	12378-PeCDD	40321-76-4	0.166 JBQ	0.0309	5.67	1
11031	123478-HxCDD	39227-28-6	0.201 JB	0.0270	5.67	1
11031	123678-HxCDD	57653-85-7	0.639 JB	0.0279	5.67	1
11031	123789-HxCDD	19408-74-3	0.412 JBQ	0.0284	5.67	1
11031	1234678-HpCDD	35822-46-9	10.1 B	0.0374	5.67	1
11031	OCDD	3268-87-9	93.3 B	0.0453	11.3	1
11031	2378-TCDF	51207-31-9	0.466 JBQ	0.0678	1.13	1
11031	12378-PeCDF	57117-41-6	1.59 JB	0.0268	5.67	1
11031	23478-PeCDF	57117-31-4	0.508 JBQ	0.0308	5.67	1
11031	123478-HxCDF	70648-26-9	0.495 JB	0.0227	5.67	1
11031	123678-HxCDF	57117-44-9	0.219 JBQ	0.0210	5.67	1
11031	123789-HxCDF	72918-21-9	0.140 JBQ	0.0275	5.67	1
11031	234678-HxCDF	60851-34-5	0.285 JBQ	0.0208	5.67	1
11031	1234678-HpCDF	67562-39-4	1.25 JB	0.0129	5.67	1
11031	1234789-HpCDF	55673-89-7	0.125 JBQ	0.0199	5.67	1
11031	OCDF	39001-02-0	1.98 JB	0.0286	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	94	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-004-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA8N-SS-0.0-0.5

LLI Sample # SW 6255805
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD004 SDG#: DX068-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-004-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-004-SA8N-SS-0.0-0.5

LLI Sample # SW 6255805
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD004 SDG#: DX068-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 18:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8N-SS-0.0-0.5

LLI Sample # SW 6255806
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD005 SDG#: DX068-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8N-SS-0.0-0.5

LLI Sample # SW 6255806
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD005 SDG#: DX068-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.512	JB 0.0341	1.05	1
11031	12378-PeCDD	40321-76-4	4.40	JB 0.0606	5.24	1
11031	123478-HxCDD	39227-28-6	5.95	B 0.0699	5.24	1
11031	123678-HxCDD	57653-85-7	31.1	B 0.0695	5.24	1
11031	123789-HxCDD	19408-74-3	12.8	B 0.0722	5.24	1
11031	1234678-HpCDD	35822-46-9	497	B 0.179	5.24	1
11031	OCDD	3268-87-9	3,720	B 0.118	10.5	1
11031	2378-TCDF	51207-31-9	1.36	B 0.0805	1.05	1
11650	2378-TCDF-Conf	51207-31-9	1.46	B 0.0569	1.05	1
11031	12378-PeCDF	57117-41-6	1.91	JB 0.0362	5.24	1
11031	23478-PeCDF	57117-31-4	27.0	B 0.0379	5.24	1
11031	123478-HxCDF	70648-26-9	4.17	JB 0.0703	5.24	1
11031	123678-HxCDF	57117-44-9	12.0	B 0.0626	5.24	1
11031	123789-HxCDF	72918-21-9	2.96	JB 0.0751	5.24	1
11031	234678-HxCDF	60851-34-5	21.2	B 0.0598	5.24	1
11031	1234678-HpCDF	67562-39-4	43.8	B 0.0394	5.24	1
11031	1234789-HpCDF	55673-89-7	2.68	JB 0.0616	5.24	1
11031	OCDF	39001-02-0	30.2	B 0.0383	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-2378-TCDF-Conf	70	24 - 169
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	53	17 - 157
13C12-1278-TCDD (CRS)	86	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-005-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8N-SS-0.0-0.5

LLI Sample # SW 6255806
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD005 SDG#: DX068-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8N-SS-0.0-0.5

LLI Sample # SW 6255806
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD005 SDG#: DX068-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 19:23	Nelson H Risser	1
11650	Dioxins/Furans in Solids- Conf	EPA 1613B	1	11118002	05/09/2011 21:42	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-006-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA8N-SS-0.0-0.5

LLI Sample # SW 6255807
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD006 SDG#: DX068-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-006-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA8N-SS-0.0-0.5

LLI Sample # SW 6255807
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD006 SDG#: DX068-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.144 JBQ	0.0275	1.12	1
11031	12378-PeCDD	40321-76-4	0.836 JB	0.0413	5.62	1
11031	123478-HxCDD	39227-28-6	1.11 JB	0.0440	5.62	1
11031	123678-HxCDD	57653-85-7	5.73 B	0.0450	5.62	1
11031	123789-HxCDD	19408-74-3	2.09 JB	0.0457	5.62	1
11031	1234678-HpCDD	35822-46-9	61.4 B	0.0910	5.62	1
11031	OCDD	3268-87-9	818 B	0.106	11.2	1
11031	2378-TCDF	51207-31-9	0.154 JB	0.0254	1.12	1
11031	12378-PeCDF	57117-41-6	0.514 JB	0.0178	5.62	1
11031	23478-PeCDF	57117-31-4	0.746 JB	0.0183	5.62	1
11031	123478-HxCDF	70648-26-9	0.797 JB	0.0296	5.62	1
11031	123678-HxCDF	57117-44-9	0.762 JB	0.0276	5.62	1
11031	123789-HxCDF	72918-21-9	0.372 JB	0.0326	5.62	1
11031	234678-HxCDF	60851-34-5	0.998 JB	0.0267	5.62	1
11031	1234678-HpCDF	67562-39-4	3.44 JB	0.0224	5.62	1
11031	1234789-HpCDF	55673-89-7	0.363 JB	0.0344	5.62	1
11031	OCDF	39001-02-0	1.88 JBQ	0.0345	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-006-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA8N-SS-0.0-0.5

LLI Sample # SW 6255807
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD006 SDG#: DX068-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-006-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-006-SA8N-SS-0.0-0.5

LLI Sample # SW 6255807
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD006 SDG#: DX068-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 20:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1

Sample Description: SL-007-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8N-SS-0.0-0.5

LLI Sample # SW 6255808
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD007 SDG#: DX068-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	17.9	0.50	0.50	1

Sample Description: SL-007-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8N-SS-0.0-0.5

LLI Sample # SW 6255808
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD007 SDG#: DX068-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.128 JBQ	0.0275	1.20	1
11031	12378-PeCDD	40321-76-4	0.617 JB	0.0417	6.00	1
11031	123478-HxCDD	39227-28-6	0.529 JB	0.0356	6.00	1
11031	123678-HxCDD	57653-85-7	1.44 JB	0.0379	6.00	1
11031	123789-HxCDD	19408-74-3	0.846 JB	0.0363	6.00	1
11031	1234678-HpCDD	35822-46-9	17.5 B	0.0524	6.00	1
11031	OCDD	3268-87-9	127 B	0.0458	12.0	1
11031	2378-TCDF	51207-31-9	0.358 JBQ	0.0708	1.20	1
11031	12378-PeCDF	57117-41-6	0.716 JB	0.0291	6.00	1
11031	23478-PeCDF	57117-31-4	0.894 JBQ	0.0314	6.00	1
11031	123478-HxCDF	70648-26-9	0.869 JB	0.0315	6.00	1
11031	123678-HxCDF	57117-44-9	0.502 JB	0.0290	6.00	1
11031	123789-HxCDF	72918-21-9	0.359 JB	0.0326	6.00	1
11031	234678-HxCDF	60851-34-5	0.593 JB	0.0287	6.00	1
11031	1234678-HpCDF	67562-39-4	2.01 JB	0.0179	6.00	1
11031	1234789-HpCDF	55673-89-7	0.288 JB	0.0264	6.00	1
11031	OCDF	39001-02-0	2.40 JB	0.0280	12.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	80	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	60	17 - 157
13C12-1278-TCDD (CRS)	88	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-007-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8N-SS-0.0-0.5

LLI Sample # SW 6255808
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD007 SDG#: DX068-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-007-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8N-SS-0.0-0.5

LLI Sample # SW 6255808
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 10:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD007 SDG#: DX068-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/02/2011 21:17	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-008-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8N-SS-0.0-0.5

LLI Sample # SW 6255809
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD008 SDG#: DX068-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	8.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8N-SS-0.0-0.5

LLI Sample # SW 6255809
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD008 SDG#: DX068-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0723 JBQ	0.0134	1.08	1
11031	12378-PeCDD	40321-76-4	0.344 JB	0.0212	5.41	1
11031	123478-HxCDD	39227-28-6	0.309 JB	0.0413	5.41	1
11031	123678-HxCDD	57653-85-7	0.614 JB	0.0425	5.41	1
11031	123789-HxCDD	19408-74-3	0.454 JB	0.0402	5.41	1
11031	1234678-HpCDD	35822-46-9	8.75 B	0.0429	5.41	1
11031	OCDD	3268-87-9	91.1 B	0.0328	10.8	1
11031	2378-TCDF	51207-31-9	0.289 JB	0.0519	1.08	1
11031	12378-PeCDF	57117-41-6	0.358 JBQ	0.0231	5.41	1
11031	23478-PeCDF	57117-31-4	0.564 JB	0.0250	5.41	1
11031	123478-HxCDF	70648-26-9	0.817 JB	0.0424	5.41	1
11031	123678-HxCDF	57117-44-9	0.332 JB	0.0364	5.41	1
11031	123789-HxCDF	72918-21-9	0.326 JB	0.0438	5.41	1
11031	234678-HxCDF	60851-34-5	0.377 JBQ	0.0365	5.41	1
11031	1234678-HpCDF	67562-39-4	1.69 JB	0.0212	5.41	1
11031	1234789-HpCDF	55673-89-7	0.297 JB	0.0323	5.41	1
11031	OCDF	39001-02-0	2.40 JB	0.0373	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	94	28 - 130
13C12-123789-HxCDD	94	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	89	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	106	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	70	17 - 157
13C12-1278-TCDD (CRS)	100	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-008-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8N-SS-0.0-0.5

LLI Sample # SW 6255809
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD008 SDG#: DX068-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-008-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8N-SS-0.0-0.5

LLI Sample # SW 6255809
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD008 SDG#: DX068-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 17:53	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8N-SS-0.0-0.5

LLI Sample # SW 6255810
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD009 SDG#: DX068-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	15.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8N-SS-0.0-0.5

LLI Sample # SW 6255810
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD009 SDG#: DX068-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0637 JBQ	0.0162	1.15	1
11031	12378-PeCDD	40321-76-4	0.0767 JB	0.0210	5.77	1
11031	123478-HxCDD	39227-28-6	0.0419 JB	0.0209	5.77	1
11031	123678-HxCDD	57653-85-7	0.126 JB	0.0215	5.77	1
11031	123789-HxCDD	19408-74-3	0.0828 JB	0.0214	5.77	1
11031	1234678-HpCDD	35822-46-9	1.58 JB	0.0477	5.77	1
11031	OCDD	3268-87-9	9.40 JB	0.0274	11.5	1
11031	2378-TCDF	51207-31-9	0.0588 JB	0.0189	1.15	1
11031	12378-PeCDF	57117-41-6	0.185 JB	0.0165	5.77	1
11031	23478-PeCDF	57117-31-4	0.211 JB	0.0167	5.77	1
11031	123478-HxCDF	70648-26-9	0.294 JB	0.0202	5.77	1
11031	123678-HxCDF	57117-44-9	0.0780 JBQ	0.0195	5.77	1
11031	123789-HxCDF	72918-21-9	0.101 JB	0.0202	5.77	1
11031	234678-HxCDF	60851-34-5	0.0900 JBQ	0.0181	5.77	1
11031	1234678-HpCDF	67562-39-4	0.293 JBQ	0.0159	5.77	1
11031	1234789-HpCDF	55673-89-7	0.0682 JB	0.0198	5.77	1
11031	OCDF	39001-02-0	0.370 JB	0.0278	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	68	17 - 157
13C12-1278-TCDD (CRS)	79	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8N-SS-0.0-0.5

LLI Sample # SW 6255810
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD009 SDG#: DX068-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-009-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8N-SS-0.0-0.5

LLI Sample # SW 6255810
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD009 SDG#: DX068-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 18:50	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8N-SS-0.0-0.5

LLI Sample # SW 6255811
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD010 SDG#: DX068-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	15.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8N-SS-0.0-0.5

LLI Sample # SW 6255811
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD010 SDG#: DX068-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0488 JB	0.0185	1.14	1
11031	12378-PeCDD	40321-76-4	0.219 JB	0.0243	5.71	1
11031	123478-HxCDD	39227-28-6	0.139 JB	0.0414	5.71	1
11031	123678-HxCDD	57653-85-7	0.473 JB	0.0373	5.71	1
11031	123789-HxCDD	19408-74-3	0.373 JB	0.0331	5.71	1
11031	1234678-HpCDD	35822-46-9	8.36 B	0.0383	5.71	1
11031	OCDD	3268-87-9	72.8 B	0.0430	11.4	1
11031	2378-TCDF	51207-31-9	0.197 JB	0.0857	1.14	1
11031	12378-PeCDF	57117-41-6	0.193 JB	0.0286	5.71	1
11031	23478-PeCDF	57117-31-4	0.531 JB	0.0307	5.71	1
11031	123478-HxCDF	70648-26-9	2.08 JB	0.0841	5.71	1
11031	123678-HxCDF	57117-44-9	0.203 JBQ	0.0559	5.71	1
11031	123789-HxCDF	72918-21-9	0.277 JB	0.0376	5.71	1
11031	234678-HxCDF	60851-34-5	0.258 JB	0.0310	5.71	1
11031	1234678-HpCDF	67562-39-4	1.64 JB	0.0358	5.71	1
11031	1234789-HpCDF	55673-89-7	0.196 JB	0.0297	5.71	1
11031	OCDF	39001-02-0	2.55 JB	0.0296	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	28	26 - 152
13C12-123678-HxCDF	41	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	45	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	57	17 - 157
13C12-1278-TCDD (CRS)	86	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-010-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8N-SS-0.0-0.5

LLI Sample # SW 6255811
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD010 SDG#: DX068-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-010-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8N-SS-0.0-0.5

LLI Sample # SW 6255811
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 12:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD010 SDG#: DX068-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11111001	04/26/2011 16:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11111001	04/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-011-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8N-SS-0.0-0.5

LLI Sample # SW 6255812
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD011 SDG#: DX068-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	15.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8N-SS-0.0-0.5

LLI Sample # SW 6255812
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD011 SDG#: DX068-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0174 U	0.0174	1.18	1
11031	12378-PeCDD	40321-76-4	0.204 JB	0.0364	5.90	1
11031	123478-HxCDD	39227-28-6	0.294 JBQ	0.0668	5.90	1
11031	123678-HxCDD	57653-85-7	1.25 JB	0.0645	5.90	1
11031	123789-HxCDD	19408-74-3	0.770 JB	0.0512	5.90	1
11031	1234678-HpCDD	35822-46-9	26.0 B	0.0738	5.90	1
11031	OCDD	3268-87-9	267 B	0.0668	11.8	1
11031	2378-TCDF	51207-31-9	2.34 B	0.230	1.18	1
11650	2378-TCDF-Conf	51207-31-9	1.02 J	0.0469	1.18	1
11031	12378-PeCDF	57117-41-6	0.322 JB	0.0645	5.90	1
11031	23478-PeCDF	57117-31-4	1.02 JB	0.0684	5.90	1
11031	123478-HxCDF	70648-26-9	3.51 JB	0.121	5.90	1
11031	123678-HxCDF	57117-44-9	0.416 JB	0.0857	5.90	1
11031	123789-HxCDF	72918-21-9	0.311 JBQ	0.0666	5.90	1
11031	234678-HxCDF	60851-34-5	0.412 JB	0.0473	5.90	1
11031	1234678-HpCDF	67562-39-4	3.62 JB	0.0512	5.90	1
11031	1234789-HpCDF	55673-89-7	0.284 JB	0.0456	5.90	1
11031	OCDF	39001-02-0	9.14 JB	0.0449	11.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-2378-TCDF-Conf	60	24 - 169
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	57	32 - 141
13C12-123678-HxCDD	63	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	27	26 - 152
13C12-123678-HxCDF	38	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	56	29 - 147
13C12-1234678-HpCDF	40	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	42	17 - 157
13C12-1278-TCDD (CRS)	76	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column

Sample Description: SL-011-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8N-SS-0.0-0.5

LLI Sample # SW 6255812
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD011 SDG#: DX068-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-011-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8N-SS-0.0-0.5

LLI Sample # SW 6255812
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD011 SDG#: DX068-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11111001	04/26/2011 17:29	Nelson H Risser	1
11650	Dioxins/Furans in Solids- Conf	EPA 1613B	1	11111001	04/29/2011 10:49	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11111001	04/21/2011 14:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255813
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255813
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0327 JBQ	0.0174	1.15	1
11031	12378-PeCDD	40321-76-4	0.246 JB	0.0518	5.74	1
11031	123478-HxCDD	39227-28-6	0.425 JB	0.0725	5.74	1
11031	123678-HxCDD	57653-85-7	2.14 JB	0.0734	5.74	1
11031	123789-HxCDD	19408-74-3	0.863 JB	0.0710	5.74	1
11031	1234678-HpCDD	35822-46-9	61.6 B	0.0977	5.74	1
11031	OCDD	3268-87-9	672 B	0.0811	11.5	1
11031	2378-TCDF	51207-31-9	0.476 JB	0.0839	1.15	1
11031	12378-PeCDF	57117-41-6	0.238 JB	0.0430	5.74	1
11031	23478-PeCDF	57117-31-4	0.761 JB	0.0427	5.74	1
11031	123478-HxCDF	70648-26-9	2.22 JB	0.0669	5.74	1
11031	123678-HxCDF	57117-44-9	0.557 JB	0.0606	5.74	1
11031	123789-HxCDF	72918-21-9	0.363 JB	0.0652	5.74	1
11031	234678-HxCDF	60851-34-5	0.701 JB	0.0571	5.74	1
11031	1234678-HpCDF	67562-39-4	7.59 B	0.0425	5.74	1
11031	1234789-HpCDF	55673-89-7	0.542 JB	0.0505	5.74	1
11031	OCDF	39001-02-0	11.3 JB	0.0377	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	70	17 - 157
13C12-1278-TCDD (CRS)	90	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-013-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255813
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.

Submitted: 04/12/2011 10:20

14420 Albemarle Point Place

Reported: 05/13/2011 13:15

Suite 210

Chantilly VA 20151

SD013 SDG#: DX068-13BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-013-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255813
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD013 SDG#: DX068-13BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 19:46	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8N-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255814
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8N-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255814
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.4	B	0.0259	1.15	1
11031	12378-PeCDD	40321-76-4	117	B	0.0729	5.75	1
11031	123478-HxCDD	39227-28-6	120	B	0.0597	5.75	1
11031	123678-HxCDD	57653-85-7	119	B	0.0619	5.75	1
11031	123789-HxCDD	19408-74-3	117	B	0.0611	5.75	1
11031	1234678-HpCDD	35822-46-9	175	B	0.110	5.75	1
11031	OCDD	3268-87-9	828	B	0.0704	11.5	1
11031	2378-TCDF	51207-31-9	23.3	B	0.0777	1.15	1
11031	12378-PeCDF	57117-41-6	115	B	0.0472	5.75	1
11031	23478-PeCDF	57117-31-4	115	B	0.0472	5.75	1
11031	123478-HxCDF	70648-26-9	118	B	0.0652	5.75	1
11031	123678-HxCDF	57117-44-9	115	B	0.0624	5.75	1
11031	123789-HxCDF	72918-21-9	115	B	0.0696	5.75	1
11031	234678-HxCDF	60851-34-5	117	B	0.0602	5.75	1
11031	1234678-HpCDF	67562-39-4	124	B	0.0513	5.75	1
11031	1234789-HpCDF	55673-89-7	118	B	0.0624	5.75	1
11031	OCDF	39001-02-0	256	B	0.0524	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	88	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	80	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	82	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	79	26 - 138
13C12-OCDF	74	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-013-SA8N-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255814
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-013-SA8N-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255814
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 20:43	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8N-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255815
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8N-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255815
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	22.5	B	0.0298	1
11031	12378-PeCDD	40321-76-4	117	B	0.0505	1
11031	123478-HxCDD	39227-28-6	119	B	0.0618	1
11031	123678-HxCDD	57653-85-7	119	B	0.0618	1
11031	123789-HxCDD	19408-74-3	117	B	0.0618	1
11031	1234678-HpCDD	35822-46-9	152	B	0.0916	1
11031	OCDD	3268-87-9	570	B	0.0740	1
11031	2378-TCDF	51207-31-9	23.7	B	0.0703	1
11031	12378-PeCDF	57117-41-6	117	B	0.0468	1
11031	23478-PeCDF	57117-31-4	118	B	0.0465	1
11031	123478-HxCDF	70648-26-9	117	B	0.0679	1
11031	123678-HxCDF	57117-44-9	115	B	0.0642	1
11031	123789-HxCDF	72918-21-9	116	B	0.0733	1
11031	234678-HxCDF	60851-34-5	119	B	0.0617	1
11031	1234678-HpCDF	67562-39-4	122	B	0.0604	1
11031	1234789-HpCDF	55673-89-7	118	B	0.0812	1
11031	OCDF	39001-02-0	252	B	0.0582	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	90	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	79	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	69	17 - 157
13C12-1278-TCDD (CRS)	91	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-013-SA8N-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255815
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD013 SDG#: DX068-13MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-013-SA8N-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8N-SS-0.0-0.5

LLI Sample # SW 6255815
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD013 SDG#: DX068-13MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 21:40	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8N-SS-0.0-0.5

LLI Sample # SW 6255816
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD014 SDG#: DX068-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8N-SS-0.0-0.5

LLI Sample # SW 6255816
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD014 SDG#: DX068-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0217 JBQ	0.0115	1.14	1
11031	12378-PeCDD	40321-76-4	0.0775 JB	0.0137	5.68	1
11031	123478-HxCDD	39227-28-6	0.0699 JBQ	0.0195	5.68	1
11031	123678-HxCDD	57653-85-7	0.132 JB	0.0207	5.68	1
11031	123789-HxCDD	19408-74-3	0.124 JBQ	0.0200	5.68	1
11031	1234678-HpCDD	35822-46-9	1.69 JB	0.0301	5.68	1
11031	OCDD	3268-87-9	11.2 JB	0.0259	11.4	1
11031	2378-TCDF	51207-31-9	0.0809 JB	0.0180	1.14	1
11031	12378-PeCDF	57117-41-6	0.0723 JB	0.0103	5.68	1
11031	23478-PeCDF	57117-31-4	0.170 JB	0.0117	5.68	1
11031	123478-HxCDF	70648-26-9	0.170 JB	0.0164	5.68	1
11031	123678-HxCDF	57117-44-9	0.0666 JB	0.0137	5.68	1
11031	123789-HxCDF	72918-21-9	0.116 JB	0.0187	5.68	1
11031	234678-HxCDF	60851-34-5	0.131 JB	0.0142	5.68	1
11031	1234678-HpCDF	67562-39-4	0.334 JB	0.0117	5.68	1
11031	1234789-HpCDF	55673-89-7	0.115 JB	0.0222	5.68	1
11031	OCDF	39001-02-0	0.563 JBQ	0.0282	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	46	17 - 157
13C12-1278-TCDD (CRS)	85	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-014-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8N-SS-0.0-0.5

LLI Sample # SW 6255816
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD014 SDG#: DX068-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-014-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8N-SS-0.0-0.5

LLI Sample # SW 6255816
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD014 SDG#: DX068-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11118002	05/03/2011 22:36	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	3	11118002	04/29/2011 10:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-017-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8N-SS-0.0-0.5

LLI Sample # SW 6255817
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD017 SDG#: DX068-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8N-SS-0.0-0.5

LLI Sample # SW 6255817
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD017 SDG#: DX068-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0265 U	0.0265	1.09	1
11031	12378-PeCDD	40321-76-4	0.215 JB	0.0328	5.45	1
11031	123478-HxCDD	39227-28-6	0.181 J	0.0314	5.45	1
11031	123678-HxCDD	57653-85-7	0.615 JB	0.0298	5.45	1
11031	123789-HxCDD	19408-74-3	0.459 JB	0.0251	5.45	1
11031	1234678-HpCDD	35822-46-9	6.43 B	0.0309	5.45	1
11031	OCDD	3268-87-9	53.4 B	0.0230	10.9	1
11031	2378-TCDF	51207-31-9	0.588 J	0.0638	1.09	1
11031	12378-PeCDF	57117-41-6	0.235 JBQ	0.0246	5.45	1
11031	23478-PeCDF	57117-31-4	1.13 JB	0.0265	5.45	1
11031	123478-HxCDF	70648-26-9	0.956 JB	0.0449	5.45	1
11031	123678-HxCDF	57117-44-9	0.346 JB	0.0321	5.45	1
11031	123789-HxCDF	72918-21-9	0.250 JB	0.0210	5.45	1
11031	234678-HxCDF	60851-34-5	0.473 JB	0.0200	5.45	1
11031	1234678-HpCDF	67562-39-4	1.45 JB	0.0209	5.45	1
11031	1234789-HpCDF	55673-89-7	0.164 JB	0.0156	5.45	1
11031	OCDF	39001-02-0	2.89 JB	0.0214	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	90	25 - 164
13C12-12378-PeCDD	92	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	109	28 - 130
13C12-1234678-HpCDD	99	23 - 140
13C12-OCDD	107	17 - 157
13C12-2378-TCDF	90	24 - 169
13C12-12378-PeCDF	99	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	90	28 - 136
13C12-123789-HxCDF	102	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	96	26 - 138
13C12-OCDF	94	17 - 157
13C12-1278-TCDD (CRS)	102	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-017-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8N-SS-0.0-0.5

LLI Sample # SW 6255817
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD017 SDG#: DX068-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-017-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8N-SS-0.0-0.5

LLI Sample # SW 6255817
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 14:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD017 SDG#: DX068-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11103001	04/17/2011 07:24	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11103001	04/13/2011 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11109162401B	04/19/2011 19:46	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-049-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA8N-SS-0.0-0.5

LLI Sample # SW 6255818
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD049 SDG#: DX068-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-049-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA8N-SS-0.0-0.5

LLI Sample # SW 6255818
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 04/12/2011 10:20

Reported: 05/13/2011 13:15

SD049 SDG#: DX068-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0233 U	0.0233	1.07	1
11031	12378-PeCDD	40321-76-4	0.0883 JBQ	0.0289	5.36	1
11031	123478-HxCDD	39227-28-6	0.108 J	0.0276	5.36	1
11031	123678-HxCDD	57653-85-7	0.176 JB	0.0262	5.36	1
11031	123789-HxCDD	19408-74-3	0.176 JB	0.0223	5.36	1
11031	1234678-HpCDD	35822-46-9	3.03 JB	0.0268	5.36	1
11031	OCDD	3268-87-9	32.0 B	0.0256	10.7	1
11031	2378-TCDF	51207-31-9	0.216 J	0.0426	1.07	1
11031	12378-PeCDF	57117-41-6	0.0194 U	0.0194	5.36	1
11031	23478-PeCDF	57117-31-4	0.240 JB	0.0204	5.36	1
11031	123478-HxCDF	70648-26-9	0.527 JB	0.0399	5.36	1
11031	123678-HxCDF	57117-44-9	0.117 JBQ	0.0291	5.36	1
11031	123789-HxCDF	72918-21-9	0.0944 JBQ	0.0168	5.36	1
11031	234678-HxCDF	60851-34-5	0.0850 JB	0.0165	5.36	1
11031	1234678-HpCDF	67562-39-4	0.688 JB	0.0258	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0886 JBQ	0.0178	5.36	1
11031	OCDF	39001-02-0	2.30 JB	0.0259	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	89	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	81	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	34	26 - 152
13C12-123678-HxCDF	47	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	86	29 - 147
13C12-1234678-HpCDF	47	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	70	17 - 157
13C12-1278-TCDD (CRS)	93	35 - 197

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-049-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA8N-SS-0.0-0.5

LLI Sample # SW 6255818
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:20

CDM Federal Programs Corp.

Submitted: 04/12/2011 10:20

14420 Albemarle Point Place

Reported: 05/13/2011 13:15

Suite 210

Chantilly VA 20151

SD049 SDG#: DX068-16*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-049-SA8N-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-049-SA8N-SS-0.0-0.5

LLI Sample # SW 6255818
LLI Group # 1241643
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 04/11/2011 13:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 04/12/2011 10:20

Suite 210

Reported: 05/13/2011 13:15

Chantilly VA 20151

SD049 SDG#: DX068-16*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11103001	04/17/2011 08:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11103001	04/13/2011 13:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11126162401A	05/06/2011 19:01	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 05/13/11 at 01:15 PM

Group Number: 1241643

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11109162401B Moisture Content by 160.3	Sample number(s): 6255801-6255804, 6255808-6255809, 6255813-6255817 100 80-120								

Batch number: 11126162401A Moisture Content by 160.3	Sample number(s): 6255805-6255807, 6255810-6255812, 6255818 100 80-120								

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11103001	Sample number(s): 6255801-6255802, 6255817-6255818								
2378-TCDD	0.0296 U	0.0296	1.00	ng/kg	95		67-158		
12378-PeCDD	0.0576 J	0.0308	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0271 U	0.0271	5.00	ng/kg	104		70-164		
123678-HxCDD	0.0356 J	0.0243	5.00	ng/kg	104		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.206 J	0.0255	5.00	ng/kg	102		70-140		
OCDD	0.626 J	0.0217	10.0	ng/kg	101		78-144		
2378-TCDF	0.0299 U	0.0299	1.00	ng/kg	102		75-158		
12378-PeCDF	0.0410 J	0.0146	5.00	ng/kg	102		80-134		
23478-PeCDF	0.0825 J	0.0150	5.00	ng/kg	101		68-160		
123478-HxCDF	0.0963 J	0.0385	5.00	ng/kg	100		72-134		
123678-HxCDF	0.0678 J	0.0256	5.00	ng/kg	104		84-130		
123789-HxCDF	0.0928 J	0.0153	5.00	ng/kg	101		78-130		
234678-HxCDF	0.0800 J	0.0128	5.00	ng/kg	101		70-156		
1234678-HpCDF	0.261 J	0.0186	5.00	ng/kg	101		82-122		
1234789-HpCDF	0.0607 J	0.0110	5.00	ng/kg	101		78-138		
OCDF	0.185 J	0.0260	10.0	ng/kg	100		63-170		
Batch number: 11111001	Sample number(s): 6255811-6255812								
2378-TCDD	0.0407 J	0.0150	1.00	ng/kg	103		67-158		
12378-PeCDD	0.0378 J	0.0115	5.00	ng/kg	108		70-142		
123478-HxCDD	0.0291 J	0.0102	5.00	ng/kg	107		70-164		
123678-HxCDD	0.0354 J	0.0100	5.00	ng/kg	107		76-134		
123789-HxCDD	0.0670 J	0.00980	5.00	ng/kg	106		64-162		
1234678-HpCDD	0.214 J	0.0159	5.00	ng/kg	106		70-140		
OCDD	0.583 J	0.0220	10.0	ng/kg	107		78-144		
2378-TCDF	0.0156 J	0.0116	1.00	ng/kg	121		75-158		
2378-TCDF-Conf	0.0308 U	0.0308	1.00	ng/kg					
12378-PeCDF	0.0460 J	0.00670	5.00	ng/kg	105		80-134		
23478-PeCDF	0.0785 J	0.00700	5.00	ng/kg	106		68-160		
123478-HxCDF	0.0546 J	0.0159	5.00	ng/kg	108		72-134		
123678-HxCDF	0.0424 J	0.0103	5.00	ng/kg	106		84-130		
123789-HxCDF	0.0880 J	0.0135	5.00	ng/kg	106		78-130		
234678-HxCDF	0.0497 J	0.00810	5.00	ng/kg	109		70-156		
1234678-HpCDF	0.123 J	0.0112	5.00	ng/kg	105		82-122		
1234789-HpCDF	0.0603 J	0.0157	5.00	ng/kg	108		78-138		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 05/13/11 at 01:15 PM

Group Number: 1241643

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
OCDF	0.155 J	0.0232	10.0	ng/kg	110		63-170		
Batch number: 11118002 Sample number(s): 6255803-6255810, 6255813-6255816									
2378-TCDD	0.155 J	0.0203	1.00	ng/kg	102		67-158		
12378-PeCDD	0.603 J	0.0251	5.00	ng/kg	102		70-142		
123478-HxCDD	0.301 J	0.0181	5.00	ng/kg	100		70-164		
123678-HxCDD	0.282 J	0.0186	5.00	ng/kg	101		76-134		
123789-HxCDD	0.266 J	0.0171	5.00	ng/kg	99		64-162		
1234678-HpCDD	0.297 J	0.0169	5.00	ng/kg	99		70-140		
OCDD	0.436 J	0.0192	10.0	ng/kg	97		78-144		
2378-TCDF	0.160 J	0.0190	1.00	ng/kg	106		75-158		
2378-TCDF-Conf	0.188 J	0.0454	1.00	ng/kg					
12378-PeCDF	0.683 J	0.0116	5.00	ng/kg	97		80-134		
23478-PeCDF	0.570 J	0.0112	5.00	ng/kg	96		68-160		
123478-HxCDF	0.388 J	0.0207	5.00	ng/kg	93		72-134		
123678-HxCDF	0.383 J	0.0181	5.00	ng/kg	97		84-130		
123789-HxCDF	0.292 J	0.0130	5.00	ng/kg	95		78-130		
234678-HxCDF	0.306 J	0.0126	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.265 J	0.00910	5.00	ng/kg	96		82-122		
1234789-HpCDF	0.143 J	0.0100	5.00	ng/kg	98		78-138		
OCDF	0.269 J	0.0207	10.0	ng/kg	97		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11109162401B Sample number(s): 6255801-6255804, 6255808-6255809, 6255813-6255817 BKG: P255794									
Moisture Content by 160.3						13.9	14.9	7	20
Batch number: 11126162401A Sample number(s): 6255805-6255807, 6255810-6255812, 6255818 BKG: P255761									
Moisture Content by 160.3						15.3	14.3	6	20
Batch number: 11118002 Sample number(s): 6255803-6255810, 6255813-6255816 UNSPK: 6255813									
2378-TCDD	97	97	67-158	1	25				
12378-PeCDD	102	101	70-142	0	25				
123478-HxCDD	104	103	70-164	1	25				
123678-HxCDD	102	102	76-134	0	25				
123789-HxCDD	101	100	64-162	0	25				
1234678-HpCDD	99	78	70-140	14	25				
OCDD	68*	-43*	78-144	37*	25				
2378-TCDF	99	101	75-158	2	25				
12378-PeCDF	99	101	80-134	2	25				
23478-PeCDF	100	101	68-160	2	25				
123478-HxCDF	101	99	72-134	1	25				
123678-HxCDF	99	99	84-130	0	25				
123789-HxCDF	100	100	78-130	1	25				
234678-HxCDF	101	102	70-156	1	25				
1234678-HpCDF	101	99	82-122	2	25				
1234789-HpCDF	102	102	78-138	1	25				
OCDF	106	104	63-170	2	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 05/13/11 at 01:15 PM

Group Number: 1241643

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11103001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6255801	80	80	41	55	78	86
6255802	76	73	42	56	71	73
6255817	90	87	41	56	90	102
6255818	84	75	34	47	78	86
Blank	83	72	28	39	78	80
OPR	77	66	23	33	71	72
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD
6255801	56	88	92	90	82	76
6255802	60	72	77	91	78	71
6255817	61	96	94	102	92	86
6255818	47	78	70	93	80	69
Blank	41	82	76	98	79	61
OPR	35	76	70	86	74	52
Limits:	28-143	26-138	17-157	35-197	25-181	32-141
	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6255801	79	83	90	98	80	84
6255802	75	81	80	88	73	81
6255817	91	109	99	107	90	99
6255818	80	89	84	81	81	85
Blank	72	85	86	90	75	79
OPR	62	76	79	84	69	74
Limits:	28-130	28-130	23-140	17-157	24-169	24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11111001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6255811	74	71	28	41	75	68
6255812	67	66	27	38	70	56
Blank	70	71	40	60	75	51
OPR	63	63	27	45	66	47
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD
6255811	45	64	57	86	77	63

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 05/13/11 at 01:15 PM

Group Number: 1241643

Surrogate Quality Control

6255812	40	54	42	76	71	57
Blank	68	56	49	99	83	80
OPR	53	48	41	87	75	70

Limits:	28-143	26-138	17-157	35-197	25-181	32-141
	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF

6255811	72	79	74	70	72	80
6255812	63	75	65	59	66	73
Blank	83	84	79	72	66	83
OPR	75	77	75	67	57	73

Limits:	28-130	28-130	23-140	17-157	24-169	24-185
	13C12-2378-TCDF-Conf					

6255811
6255812 60
Blank 68
OPR

Limits: 24-169

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11118002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6255803	75	73	67	74	69	66
6255804	78	75	70	75	77	70
6255805	82	76	71	76	72	64
6255806	79	75	67	72	71	68
6255807	72	76	69	73	72	71
6255808	74	73	68	74	70	74
6255809	86	85	79	89	87	81
6255810	74	72	70	72	76	77
6255813	84	82	73	77	81	80
6255814	86	83	80	82	85	82
6255815	82	81	78	81	82	78
6255816	74	69	63	74	71	60
Blank	69	72	42	47	69	73
MS	86	83	80	82	85	82
MSD	82	81	78	81	82	78
OPR	71	69	44	48	68	68

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD

6255803	73	59	47	90	77	76
6255804	79	61	50	90	77	91
6255805	76	58	48	94	82	82
6255806	79	63	53	86	80	80
6255807	81	65	55	91	81	82
6255808	84	66	60	88	78	80
6255809	106	76	70	100	91	93

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 05/13/11 at 01:15 PM

Group Number: 1241643

Surrogate Quality Control

6255810	78	72	68	79	75	82
6255813	81	76	70	90	84	86
6255814	86	79	74	91	86	90
6255815	85	74	69	91	85	90
6255816	90	54	46	85	77	84
Blank	63	69	64	91	76	72
MS	86	79	74	91	86	90
MSD	85	74	69	91	85	90
OPR	58	60	50	89	72	70

Limits:	28-143	26-138	17-157	35-197	25-181	32-141
	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF

6255803	78	77	73	61	72	85
6255804	95	91	77	65	77	84
6255805	82	78	72	62	79	93
6255806	82	79	80	72	75	86
6255807	83	81	80	72	73	87
6255808	78	79	82	80	73	85
6255809	94	94	92	90	81	98
6255810	83	79	77	75	72	78
6255813	84	84	83	78	81	87
6255814	91	88	85	82	81	88
6255815	88	87	82	79	79	87
6255816	79	78	74	70	68	83
Blank	72	77	83	82	66	76
MS	91	88	85	82	81	88
MSD	88	87	82	79	79	87
OPR	69	80	75	68	69	75

Limits:	28-130	28-130	23-140	17-157	24-169	24-185
	13C12-2378-TCDF-Conf					

6255803	
6255804	
6255805	
6255806	70
6255807	
6255808	
6255809	
6255810	
6255813	
6255814	
6255815	
6255816	
Blank	64
MS	
MSD	
OPR	

Limits: 24-169

*- Outside of specification

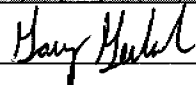
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1241643 6255801-18

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels @ For hex chrome analysis, lab will measure pH and ORP \$ Moisture by EPA 100.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected						*Metals EPA 8010/8208/8474	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCBs EPA 8032	*Dioxin/Furan EPA 1631B	*Pesticides EPA 314.0	*Hex Chrome EPA 7169*	*pH EPA 9045C/9040B	*Pesticide Confirmation by EPA 8650 (10%)	**TPH-EPH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**H-NOMA EPA 1625C	**Energies EPA 8330A	**Cyanide EPA 9012B	**Tetraphenyl EPA 9015B	**Glycols EPA 8015B	**Alcohols EPA 8015B			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
DUP01-SA8N-QC-041111	04.11.11	1400	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X								X					
DUP01-SA8N-QC-041111	04.11.11	1400	SOIL	NONE	1 SS sleeve			X	X																	
SL-001-SA8N-SS-0.0-0.5	04.11.11	0915	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X								X					
SL-001-SA8N-SS-0.0-0.5	04.11.11	0915	SOIL	NONE	1 SS sleeve			X	X																	
SL-002-SA8N-SS-0.0-0.5	04.11.11	0930	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X	X							X					
SL-002-SA8N-SS-0.0-0.5	04.11.11	0930	SOIL	NONE	1 SS sleeve			X	X																	
SL-003-SA8N-SS-0.0-0.5	04.11.11	0940	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X								X					
SL-003-SA8N-SS-0.0-0.5	04.11.11	0940	SOIL	NONE	1 SS sleeve			X	X																	
SL-004-SA8N-SS-0.0-0.5	04.11.11	0955	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X					X			X					
SL-004-SA8N-SS-0.0-0.5	04.11.11	0955	SOIL	NONE	1 SS sleeve			X	X																	
SL-005-SA8N-SS-0.0-0.5	04.11.11	1010	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X					X			X					
SL-005-SA8N-SS-0.0-0.5	04.11.11	1010	SOIL	NONE	1 SS sleeve			X	X																	
SL-006-SA8N-SS-0.0-0.5	04.11.11	1025	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X					X			X					
SL-006-SA8N-SS-0.0-0.5	04.11.11	1025	SOIL	NONE	1 SS sleeve			X	X																	
SL-007-SA8N-SS-0.0-0.5	04.11.11	1040	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X								X					
SL-007-SA8N-SS-0.0-0.5	04.11.11	1040	SOIL	NONE	1 SS sleeve			X	X																	
SL-008-SA8N-SS-0.0-0.5	04.11.11	1100	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X								X					
SL-008-SA8N-SS-0.0-0.5	04.11.11	1100	SOIL	NONE	1 SS sleeve			X	X																	
SL-009-SA8N-SS-0.0-0.5	04.11.11	1245	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X					X			X					
SL-009-SA8N-SS-0.0-0.5	04.11.11	1245	SOIL	NONE	1 SS sleeve			X	X																	
SL-010-SA8N-SS-0.0-0.5	04.11.11	1255	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X				
SL-010-SA8N-SS-0.0-0.5	04.11.11	1255	SOIL	NONE	1 SS sleeve			X	X																	
SL-011-SA8N-SS-0.0-0.5	04.11.11	1310	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X				
SL-011-SA8N-SS-0.0-0.5	04.11.11	1310	SOIL	NONE	1 SS sleeve			X	X																	
SL-013-SA8N-SS-0.0-0.5MS	04.11.11	1400	SOIL	NONE	1-16 oz jars	X	X			X	X	X	X								X	MS/MSD				
SL-013-SA8N-SS-0.0-0.5MS	04.11.11	1400	SOIL	NONE	2 SS sleeves			X	X													MS/MSD				
Relinquished by: (Signature)		Date/Time 04/11/2011 / 1700		Received for Laboratory by: (Signature)				 4/12/11 1020															Laboratory: Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s) 8695 1432 3596; 8596 1432 3600 8695 1432 3611; 8596 1432 3780																						

13013

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes						
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels @ For hex chrome analysis, lab will measure pH and ORP \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected																																	
Samplers Signatures: <i>Steph Britch</i>																																	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8020/8247/1A	*Fluoride EPA 300.0	SVOs EPA 8270C & PAHs 8270 SIM	PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7169	*pH EPA 8045/8040B	Perchlorate Confirmation by EPA 6850 (10%)	**TPH-EFH EPA 8015B Mod	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Enthalpies EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B										
SL-014-SA8N-SS-0.0-0.5	04.11.11	1430	SOIL	NONE	2-16 oz jar	X	X			X	X	X	X									X											
SL-014-SA8N-SS-0.0-0.5	04.11.11	1430	SOIL	NONE	1 SS sleeve			X	X																								
SL-017-SA8N-SS-0.0-0.5	4.11.11	1450	SOIL	NONE	2-16 oz jar	X	X			X	X	X	X									X											
SL-017-SA8N-SS-0.0-0.5	4.11.11	1450	SOIL	NONE	1 SS sleeve			X	X																								
SL-049-SA8N-SS-0.0-0.5	4.11.11	1320	SOIL	NONE	2-16 oz jar	X	X			X	X	X	X		X	X	X	X	X	X	X	X	X										
SL-049-SA8N-SS-0.0-0.5	4.11.11	1320	SOIL	NONE	1 SS sleeve			X	X																								
Received by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																		Laboratory:											
		04/11/2011 / 1700																				Lancaster Laboratories, Inc.											
Received by: (Signature)		Date/Time		Airbill No.(s)																													
				8695 1432 3596; 8695 1432 3600																													

4/11/11 1020

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 24, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/30/2011

Group Number: 1269115

SDG: DX147

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA8S-SS-0.0-0.5 Soil	6423873
SL-003-SA8S-SS-0.0-0.5 Soil	6423874
SL-003-SA8S-SS-0.0-0.5MS Soil	6423875
SL-003-SA8S-SS-0.0-0.5MSD Soil	6423876
SL-005-SA8S-SS-0.0-0.5 Soil	6423877
SL-007-SA8S-SS-0.0-0.5 Soil	6423878
SL-013-SA8S-SS-0.0-0.5 Soil	6423879
SL-014-SA8S-SS-0.0-0.5 Soil	6423880
SL-015-SA8S-SS-0.0-0.5 Soil	6423881
SL-024-SA8S-SS-0.0-0.5 Soil	6423882
DUP01-SA8S-QC-092911 Soil	6423883
SL-126-SA7-SB-4.0-5.0 Soil	6423884
SL-127-SA7-SB-4.0-5.0 Soil	6423885
SL-177-SA7-SB-3.0-4.0 Soil	6423886

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0366 U	0.0366	1.06	1
11031	12378-PeCDD	40321-76-4	0.0599 J	0.0362	5.28	1
11031	123478-HxCDD	39227-28-6	0.0733 J	0.0329	5.28	1
11031	123678-HxCDD	57653-85-7	0.152 JB	0.0326	5.28	1
11031	123789-HxCDD	19408-74-3	0.125 JB	0.0347	5.28	1
11031	1234678-HpCDD	35822-46-9	2.77 JB	0.0590	5.28	1
11031	OCDD	3268-87-9	19.3 B	0.0762	10.6	1
11031	2378-TCDF	51207-31-9	0.179 JB	0.0436	1.06	1
11031	12378-PeCDF	57117-41-6	0.0941 JBQ	0.0250	5.28	1
11031	23478-PeCDF	57117-31-4	0.381 JB	0.0263	5.28	1
11031	123478-HxCDF	70648-26-9	0.288 JQ	0.0388	5.28	1
11031	123678-HxCDF	57117-44-9	0.133 JBQ	0.0311	5.28	1
11031	123789-HxCDF	72918-21-9	0.0547 JBQ	0.0320	5.28	1
11031	234678-HxCDF	60851-34-5	0.203 JB	0.0242	5.28	1
11031	1234678-HpCDF	67562-39-4	0.592 JB	0.0323	5.28	1
11031	1234789-HpCDF	55673-89-7	0.118 JBQ	0.0499	5.28	1
11031	OCDF	39001-02-0	1.15 JB	0.0920	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	50	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4701 SDG#: DX147-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 13:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0329 U	0.0329	1.02	1
11031	12378-PeCDD	40321-76-4	0.0765 J	0.0313	5.09	1
11031	123478-HxCDD	39227-28-6	0.0692 JQ	0.0320	5.09	1
11031	123678-HxCDD	57653-85-7	0.165 JB	0.0345	5.09	1
11031	123789-HxCDD	19408-74-3	0.163 JBQ	0.0290	5.09	1
11031	1234678-HpCDD	35822-46-9	2.71 JB	0.0405	5.09	1
11031	OCDD	3268-87-9	18.7 B	0.0407	10.2	1
11031	2378-TCDF	51207-31-9	0.196 JB	0.0375	1.02	1
11031	12378-PeCDF	57117-41-6	0.0217 U	0.0217	5.09	1
11031	23478-PeCDF	57117-31-4	0.317 JB	0.0220	5.09	1
11031	123478-HxCDF	70648-26-9	0.220 J	0.0352	5.09	1
11031	123678-HxCDF	57117-44-9	0.113 JBQ	0.0268	5.09	1
11031	123789-HxCDF	72918-21-9	0.0252 U	0.0252	5.09	1
11031	234678-HxCDF	60851-34-5	0.150 JB	0.0209	5.09	1
11031	1234678-HpCDF	67562-39-4	0.574 JB	0.0211	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0457 JB	0.0282	5.09	1
11031	OCDF	39001-02-0	0.882 JB	0.0464	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	51	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4702 SDG#: DX147-02BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 14:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.2	B	0.0509	1.01	1
11031	12378-PeCDD	40321-76-4	104		0.0575	5.04	1
11031	123478-HxCDD	39227-28-6	105		0.0609	5.04	1
11031	123678-HxCDD	57653-85-7	101	B	0.0607	5.04	1
11031	123789-HxCDD	19408-74-3	102	B	0.0598	5.04	1
11031	1234678-HpCDD	35822-46-9	105	B	0.0721	5.04	1
11031	OCDD	3268-87-9	227	B	0.0818	10.1	1
11031	2378-TCDF	51207-31-9	20.8	B	0.0568	1.01	1
11031	12378-PeCDF	57117-41-6	102	B	0.0363	5.04	1
11031	23478-PeCDF	57117-31-4	99.6	B	0.0369	5.04	1
11031	123478-HxCDF	70648-26-9	96.9		0.113	5.04	1
11031	123678-HxCDF	57117-44-9	99.3	B	0.0879	5.04	1
11031	123789-HxCDF	72918-21-9	101	B	0.0777	5.04	1
11031	234678-HxCDF	60851-34-5	101	B	0.0666	5.04	1
11031	1234678-HpCDF	67562-39-4	98.7	B	0.0736	5.04	1
11031	1234789-HpCDF	55673-89-7	101	B	0.105	5.04	1
11031	OCDF	39001-02-0	207	B	0.0905	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 18:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.9	B	0.0570	0.996	1
11031	12378-PeCDD	40321-76-4	104		0.0531	4.98	1
11031	123478-HxCDD	39227-28-6	103		0.0592	4.98	1
11031	123678-HxCDD	57653-85-7	98.8	B	0.0654	4.98	1
11031	123789-HxCDD	19408-74-3	99.7	B	0.0609	4.98	1
11031	1234678-HpCDD	35822-46-9	102	B	0.0664	4.98	1
11031	OCDD	3268-87-9	216	B	0.0637	9.96	1
11031	2378-TCDF	51207-31-9	20.0	B	0.0551	0.996	1
11031	12378-PeCDF	57117-41-6	100	B	0.0368	4.98	1
11031	23478-PeCDF	57117-31-4	98.5	B	0.0364	4.98	1
11031	123478-HxCDF	70648-26-9	99.6		0.106	4.98	1
11031	123678-HxCDF	57117-44-9	98.5	B	0.0920	4.98	1
11031	123789-HxCDF	72918-21-9	100	B	0.0885	4.98	1
11031	234678-HxCDF	60851-34-5	100	B	0.0785	4.98	1
11031	1234678-HpCDF	67562-39-4	97.7	B	0.0576	4.98	1
11031	1234789-HpCDF	55673-89-7	99.5	B	0.0768	4.98	1
11031	OCDF	39001-02-0	201	B	0.0685	9.96	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	49	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 19:04	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0367 U	0.0367	1.02	1
11031	12378-PeCDD	40321-76-4	0.0587 JQ	0.0286	5.09	1
11031	123478-HxCDD	39227-28-6	0.0315 J	0.0252	5.09	1
11031	123678-HxCDD	57653-85-7	0.0811 JBQ	0.0273	5.09	1
11031	123789-HxCDD	19408-74-3	0.0560 JB	0.0238	5.09	1
11031	1234678-HpCDD	35822-46-9	0.781 JB	0.0297	5.09	1
11031	OCDD	3268-87-9	5.28 JB	0.0248	10.2	1
11031	2378-TCDF	51207-31-9	0.0324 U	0.0324	1.02	1
11031	12378-PeCDF	57117-41-6	0.0389 JB	0.0198	5.09	1
11031	23478-PeCDF	57117-31-4	0.0720 JBQ	0.0189	5.09	1
11031	123478-HxCDF	70648-26-9	0.0398 JQ	0.0348	5.09	1
11031	123678-HxCDF	57117-44-9	0.0340 JB	0.0326	5.09	1
11031	123789-HxCDF	72918-21-9	0.0374 JBQ	0.0192	5.09	1
11031	234678-HxCDF	60851-34-5	0.0512 JB	0.0162	5.09	1
11031	1234678-HpCDF	67562-39-4	0.151 JB	0.0191	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0559 JB	0.0189	5.09	1
11031	OCDF	39001-02-0	0.353 JB	0.0407	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	29	26 - 152
13C12-123678-HxCDF	31	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	45	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 20:01	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0363 U	0.0363	1.03	1
11031	12378-PeCDD	40321-76-4	0.0474 JQ	0.0270	5.14	1
11031	123478-HxCDD	39227-28-6	0.0397 JQ	0.0280	5.14	1
11031	123678-HxCDD	57653-85-7	0.119 JB	0.0270	5.14	1
11031	123789-HxCDD	19408-74-3	0.118 JBQ	0.0273	5.14	1
11031	1234678-HpCDD	35822-46-9	2.29 JB	0.0341	5.14	1
11031	OCDD	3268-87-9	30.0 B	0.0315	10.3	1
11031	2378-TCDF	51207-31-9	0.0545 JB	0.0312	1.03	1
11031	12378-PeCDF	57117-41-6	0.0178 U	0.0178	5.14	1
11031	23478-PeCDF	57117-31-4	0.0428 JBQ	0.0171	5.14	1
11031	123478-HxCDF	70648-26-9	0.0598 JQ	0.0255	5.14	1
11031	123678-HxCDF	57117-44-9	0.0674 JB	0.0227	5.14	1
11031	123789-HxCDF	72918-21-9	0.0505 JBQ	0.0178	5.14	1
11031	234678-HxCDF	60851-34-5	0.0823 JBQ	0.0153	5.14	1
11031	1234678-HpCDF	67562-39-4	0.474 JB	0.0190	5.14	1
11031	1234789-HpCDF	55673-89-7	0.0508 JB	0.0211	5.14	1
11031	OCDF	39001-02-0	0.884 JB	0.0379	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	45	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4704 SDG#: DX147-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 20:58	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0342 U	0.0342	1.03	1
11031	12378-PeCDD	40321-76-4	0.188 J	0.0333	5.14	1
11031	123478-HxCDD	39227-28-6	0.224 J	0.0317	5.14	1
11031	123678-HxCDD	57653-85-7	0.253 JB	0.0310	5.14	1
11031	123789-HxCDD	19408-74-3	0.289 JB	0.0323	5.14	1
11031	1234678-HpCDD	35822-46-9	2.17 JB	0.0342	5.14	1
11031	OCDD	3268-87-9	14.2 B	0.0314	10.3	1
11031	2378-TCDF	51207-31-9	0.183 JB	0.0618	1.03	1
11031	12378-PeCDF	57117-41-6	0.268 JBQ	0.0288	5.14	1
11031	23478-PeCDF	57117-31-4	0.601 JB	0.0291	5.14	1
11031	123478-HxCDF	70648-26-9	0.438 J	0.0445	5.14	1
11031	123678-HxCDF	57117-44-9	0.372 JBQ	0.0382	5.14	1
11031	123789-HxCDF	72918-21-9	0.222 JBQ	0.0314	5.14	1
11031	234678-HxCDF	60851-34-5	0.311 JB	0.0265	5.14	1
11031	1234678-HpCDF	67562-39-4	0.756 JB	0.0242	5.14	1
11031	1234789-HpCDF	55673-89-7	0.211 JBQ	0.0263	5.14	1
11031	OCDF	39001-02-0	1.27 JB	0.0324	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	50	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4705 SDG#: DX147-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 21:54	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0317 U	0.0317	1.04	1
11031	12378-PeCDD	40321-76-4	0.164 J	0.0295	5.20	1
11031	123478-HxCDD	39227-28-6	0.194 J	0.0411	5.20	1
11031	123678-HxCDD	57653-85-7	0.247 JB	0.0443	5.20	1
11031	123789-HxCDD	19408-74-3	0.210 JBQ	0.0377	5.20	1
11031	1234678-HpCDD	35822-46-9	6.20 B	0.0420	5.20	1
11031	OCDD	3268-87-9	64.7 B	0.0439	10.4	1
11031	2378-TCDF	51207-31-9	0.0992 JB	0.0421	1.04	1
11031	12378-PeCDF	57117-41-6	0.220 JB	0.0239	5.20	1
11031	23478-PeCDF	57117-31-4	0.409 JB	0.0245	5.20	1
11031	123478-HxCDF	70648-26-9	0.220 J	0.0344	5.20	1
11031	123678-HxCDF	57117-44-9	0.172 JB	0.0266	5.20	1
11031	123789-HxCDF	72918-21-9	0.0228 U	0.0228	5.20	1
11031	234678-HxCDF	60851-34-5	0.184 JB	0.0193	5.20	1
11031	1234678-HpCDF	67562-39-4	0.690 JB	0.0225	5.20	1
11031	1234789-HpCDF	55673-89-7	0.0761 JBQ	0.0259	5.20	1
11031	OCDF	39001-02-0	1.33 JB	0.0312	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	49	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4706 SDG#: DX147-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 22:51	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0310 U	0.0310	1.03	1
11031	12378-PeCDD	40321-76-4	0.0439 JB	0.0285	5.14	1
11031	123478-HxCDD	39227-28-6	0.0940 JBQ	0.0360	5.14	1
11031	123678-HxCDD	57653-85-7	0.169 JBQ	0.0345	5.14	1
11031	123789-HxCDD	19408-74-3	0.0999 JB	0.0333	5.14	1
11031	1234678-HpCDD	35822-46-9	5.08 JB	0.0435	5.14	1
11031	OCDD	3268-87-9	86.6 B	0.0477	10.3	1
11031	2378-TCDF	51207-31-9	0.0580 JQ	0.0372	1.03	1
11031	12378-PeCDF	57117-41-6	0.0687 JB	0.0184	5.14	1
11031	23478-PeCDF	57117-31-4	0.220 JBQ	0.0185	5.14	1
11031	123478-HxCDF	70648-26-9	0.189 JBQ	0.0463	5.14	1
11031	123678-HxCDF	57117-44-9	0.129 JBQ	0.0412	5.14	1
11031	123789-HxCDF	72918-21-9	0.0687 JQ	0.0240	5.14	1
11031	234678-HxCDF	60851-34-5	0.178 JB	0.0190	5.14	1
11031	1234678-HpCDF	67562-39-4	0.862 JB	0.0254	5.14	1
11031	1234789-HpCDF	55673-89-7	0.108 JB	0.0244	5.14	1
11031	OCDF	39001-02-0	0.875 JB	0.0367	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	32	26 - 152
13C12-123678-HxCDF	36	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 03:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0482 JQ	0.0321	1.00	1
11031	12378-PeCDD	40321-76-4	0.0493 JBQ	0.0288	5.00	1
11031	123478-HxCDD	39227-28-6	0.137 JBQ	0.0388	5.00	1
11031	123678-HxCDD	57653-85-7	0.225 JB	0.0417	5.00	1
11031	123789-HxCDD	19408-74-3	0.183 JBQ	0.0314	5.00	1
11031	1234678-HpCDD	35822-46-9	3.94 JB	0.0303	5.00	1
11031	OCDD	3268-87-9	27.7 B	0.0323	10.0	1
11031	2378-TCDF	51207-31-9	0.282 J	0.0531	1.00	1
11031	12378-PeCDF	57117-41-6	0.190 JB	0.0273	5.00	1
11031	23478-PeCDF	57117-31-4	0.0436 JBQ	0.0256	5.00	1
11031	123478-HxCDF	70648-26-9	0.179 JBQ	0.0242	5.00	1
11031	123678-HxCDF	57117-44-9	0.138 JB	0.0222	5.00	1
11031	123789-HxCDF	72918-21-9	0.0642 JQ	0.0265	5.00	1
11031	234678-HxCDF	60851-34-5	0.190 JBQ	0.0224	5.00	1
11031	1234678-HpCDF	67562-39-4	0.772 JB	0.0181	5.00	1
11031	1234789-HpCDF	55673-89-7	0.0874 JBQ	0.0267	5.00	1
11031	OCDF	39001-02-0	1.26 JB	0.0253	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4708 SDG#: DX147-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 04:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0275 U	0.0275	1.03	1
11031	12378-PeCDD	40321-76-4	0.0846 JQ	0.0258	5.15	1
11031	123478-HxCDD	39227-28-6	0.0704 JQ	0.0271	5.15	1
11031	123678-HxCDD	57653-85-7	0.193 JB	0.0260	5.15	1
11031	123789-HxCDD	19408-74-3	0.138 JB	0.0256	5.15	1
11031	1234678-HpCDD	35822-46-9	3.04 JB	0.0303	5.15	1
11031	OCDD	3268-87-9	27.5 B	0.0265	10.3	1
11031	2378-TCDF	51207-31-9	0.265 JB	0.0349	1.03	1
11031	12378-PeCDF	57117-41-6	0.0763 JB	0.0215	5.15	1
11031	23478-PeCDF	57117-31-4	0.233 JB	0.0220	5.15	1
11031	123478-HxCDF	70648-26-9	0.361 J	0.0281	5.15	1
11031	123678-HxCDF	57117-44-9	0.148 JB	0.0233	5.15	1
11031	123789-HxCDF	72918-21-9	0.0609 JB	0.0205	5.15	1
11031	234678-HxCDF	60851-34-5	0.149 JB	0.0186	5.15	1
11031	1234678-HpCDF	67562-39-4	0.615 JBQ	0.0183	5.15	1
11031	1234789-HpCDF	55673-89-7	0.0624 JBQ	0.0245	5.15	1
11031	OCDF	39001-02-0	1.00 JB	0.0284	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	47	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4709 SDG#: DX147-09FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/16/2011 01:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0347 U	0.0347	1.07	1
11031	12378-PeCDD	40321-76-4	0.0266 U	0.0266	5.35	1
11031	123478-HxCDD	39227-28-6	0.0226 U	0.0226	5.35	1
11031	123678-HxCDD	57653-85-7	0.124 JB	0.0231	5.35	1
11031	123789-HxCDD	19408-74-3	0.234 JB	0.0209	5.35	1
11031	1234678-HpCDD	35822-46-9	0.211 JBQ	0.0217	5.35	1
11031	OCDD	3268-87-9	0.577 JB	0.0193	10.7	1
11031	2378-TCDF	51207-31-9	0.0249 U	0.0249	1.07	1
11031	12378-PeCDF	57117-41-6	0.0429 JB	0.0155	5.35	1
11031	23478-PeCDF	57117-31-4	0.0412 JB	0.0145	5.35	1
11031	123478-HxCDF	70648-26-9	0.0232 U	0.0232	5.35	1
11031	123678-HxCDF	57117-44-9	0.0200 U	0.0200	5.35	1
11031	123789-HxCDF	72918-21-9	0.210 JBQ	0.0136	5.35	1
11031	234678-HxCDF	60851-34-5	0.0159 JB	0.0120	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0901 JBQ	0.0170	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0193 JB	0.0156	5.35	1
11031	OCDF	39001-02-0	0.124 JBQ	0.0278	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	36	26 - 152
13C12-123678-HxCDF	41	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4710 SDG#: DX147-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/16/2011 02:37	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0177 U	0.0177	1.02	1
11031	12378-PeCDD	40321-76-4	0.0360 J	0.0167	5.11	1
11031	123478-HxCDD	39227-28-6	0.0219 J	0.0146	5.11	1
11031	123678-HxCDD	57653-85-7	0.0346 JB	0.0158	5.11	1
11031	123789-HxCDD	19408-74-3	0.0636 JBQ	0.0146	5.11	1
11031	1234678-HpCDD	35822-46-9	0.284 JB	0.0175	5.11	1
11031	OCDD	3268-87-9	0.862 JB	0.0149	10.2	1
11031	2378-TCDF	51207-31-9	0.0162 U	0.0162	1.02	1
11031	12378-PeCDF	57117-41-6	0.0254 JBQ	0.00973	5.11	1
11031	23478-PeCDF	57117-31-4	0.0610 JBQ	0.00952	5.11	1
11031	123478-HxCDF	70648-26-9	0.0196 U	0.0196	5.11	1
11031	123678-HxCDF	57117-44-9	0.0482 JBQ	0.0180	5.11	1
11031	123789-HxCDF	72918-21-9	0.0500 JBQ	0.0119	5.11	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.0104	5.11	1
11031	1234678-HpCDF	67562-39-4	0.163 JB	0.0112	5.11	1
11031	1234789-HpCDF	55673-89-7	0.0235 JBQ	0.0114	5.11	1
11031	OCDF	39001-02-0	0.230 JB	0.0225	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	35	26 - 152
13C12-123678-HxCDF	40	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/18/2011 02:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0319 JQ	0.0314	1.06	1
11031	12378-PeCDD	40321-76-4	0.0346 JBQ	0.0234	5.28	1
11031	123478-HxCDD	39227-28-6	0.0217 U	0.0217	5.28	1
11031	123678-HxCDD	57653-85-7	0.0551 JBQ	0.0204	5.28	1
11031	123789-HxCDD	19408-74-3	0.0930 JBQ	0.0202	5.28	1
11031	1234678-HpCDD	35822-46-9	0.339 JB	0.0214	5.28	1
11031	OCDD	3268-87-9	1.15 JB	0.0208	10.6	1
11031	2378-TCDF	51207-31-9	0.0344 JQ	0.0252	1.06	1
11031	12378-PeCDF	57117-41-6	0.0291 JBQ	0.0138	5.28	1
11031	23478-PeCDF	57117-31-4	0.0135 U	0.0135	5.28	1
11031	123478-HxCDF	70648-26-9	0.0413 JBQ	0.0161	5.28	1
11031	123678-HxCDF	57117-44-9	0.0191 JBQ	0.0139	5.28	1
11031	123789-HxCDF	72918-21-9	0.0556 JQ	0.0176	5.28	1
11031	234678-HxCDF	60851-34-5	0.0511 JBQ	0.0147	5.28	1
11031	1234678-HpCDF	67562-39-4	0.135 JBQ	0.0113	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0411 JBQ	0.0186	5.28	1
11031	OCDF	39001-02-0	0.179 JB	0.0316	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 05:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278162403B Moisture Content by 160.3	Sample number(s): 6423873-6423886				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11286001	Sample number(s): 6423873-6423880, 6423883-6423885								
2378-TCDD	0.0626 J	0.0378	1.00	ng/kg	104		67-158		
12378-PeCDD	0.0319 U	0.0319	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0204 U	0.0204	5.00	ng/kg	103		70-164		
123678-HxCDD	0.0344 J	0.0212	5.00	ng/kg	96		76-134		
123789-HxCDD	0.0271 J	0.0204	5.00	ng/kg	100		64-162		
1234678-HpCDD	0.202 J	0.0320	5.00	ng/kg	99		70-140		
OCDD	0.380 J	0.0230	10.0	ng/kg	97		78-144		
2378-TCDF	0.0391 J	0.0342	1.00	ng/kg	107		75-158		
12378-PeCDF	0.0281 J	0.0158	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0553 J	0.0164	5.00	ng/kg	97		68-160		
123478-HxCDF	0.0239 U	0.0239	5.00	ng/kg	98		72-134		
123678-HxCDF	0.0263 J	0.0195	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0293 J	0.0175	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0606 J	0.0151	5.00	ng/kg	98		70-156		
1234678-HpCDF	0.0913 J	0.0121	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0260 J	0.0168	5.00	ng/kg	98		78-138		
OCDF	0.189 J	0.0416	10.0	ng/kg	99		63-170		

Batch number: 11292003	Sample number(s): 6423881-6423882, 6423886								
2378-TCDD	0.0344 U	0.0344	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0488 J	0.0288	5.00	ng/kg	99		70-142		
123478-HxCDD	0.0310 J	0.0190	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0294 J	0.0192	5.00	ng/kg	92		76-134		
123789-HxCDD	0.0415 J	0.0191	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.305 J	0.0224	5.00	ng/kg	95		70-140		
OCDD	0.653 J	0.0196	10.0	ng/kg	93		78-144		
2378-TCDF	0.0262 U	0.0262	1.00	ng/kg	95		75-158		
12378-PeCDF	0.0392 J	0.0149	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0693 J	0.0140	5.00	ng/kg	92		68-160		
123478-HxCDF	0.114 J	0.0232	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0822 J	0.0204	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0174 U	0.0174	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0874 J	0.0146	5.00	ng/kg	93		70-156		
1234678-HpCDF	0.370 J	0.0160	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0805 J	0.0189	5.00	ng/kg	93		78-138		
OCDF	0.256 J	0.0304	10.0	ng/kg	94		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11278162403B Moisture Content by 160.3	Sample number(s): 6423873-6423886 BKG: P423856 3.3 3.3 0 20								
Batch number: 11286001	Sample number(s): 6423873-6423880, 6423883-6423885 UNSPK: 6423874								
2378-TCDD	105	105	67-158	1	25				
12378-PeCDD	103	104	70-142	1	25				
123478-HxCDD	104	103	70-164	2	25				
123678-HxCDD	100	99	76-134	2	25				
123789-HxCDD	101	100	64-162	2	25				
1234678-HpCDD	102	100	70-140	3	25				
OCDD	103	99	78-144	5	25				
2378-TCDF	102	99	75-158	4	25				
12378-PeCDF	101	101	80-134	2	25				
23478-PeCDF	98	99	68-160	1	25				
123478-HxCDF	96	100	72-134	3	25				
123678-HxCDF	98	99	84-130	1	25				
123789-HxCDF	100	100	78-130	1	25				
234678-HxCDF	100	100	70-156	1	25				
1234678-HpCDF	97	97	82-122	1	25				
1234789-HpCDF	100	100	78-138	1	25				
OCDF	102	100	63-170	3	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11286001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6423873	74	63	40	50	63	57
6423874	72	63	41	51	64	62
6423875	74	67	40	52	68	71
6423876	72	66	49	56	66	67
6423877	60	58	29	31	58	60
6423878	68	65	41	45	65	67
6423879	75	69	41	50	70	69
6423880	77	71	40	49	66	68
6423883	78	70	47	56	70	74
6423884	67	66	36	41	65	67
6423885	67	63	35	40	65	68
Blank	82	75	48	60	76	77
MS	74	67	40	52	68	71
MSD	72	66	49	56	66	67
OPR	69	59	40	53	63	56

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Surrogate Quality Control

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6423873	69	56	55	74	78	81
6423874	67	62	62	71	80	77
6423875	72	64	66	76	79	83
6423876	71	64	65	71	80	81
6423877	45	57	59	64	71	70
6423878	61	67	73	73	78	83
6423879	63	69	77	76	83	90
6423880	61	65	64	78	81	78
6423883	73	70	72	78	85	91
6423884	53	66	69	72	76	76
6423885	53	63	64	69	74	74
Blank	86	74	75	85	92	93
MS	72	64	66	76	79	83
MSD	71	64	65	71	80	81
OPR	78	55	55	73	82	84

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6423873	79	82	82	66	75	
6423874	83	84	85	66	71	
6423875	83	87	92	69	78	
6423876	83	85	85	70	72	
6423877	73	76	76	56	63	
6423878	78	85	92	63	71	
6423879	84	88	95	70	77	
6423880	86	90	85	73	79	
6423883	90	91	92	74	80	
6423884	82	85	86	65	71	
6423885	76	80	82	65	70	
Blank	93	100	105	74	84	
MS	83	87	92	69	78	
MSD	83	85	85	70	72	
OPR	82	87	90	59	70	

Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11292003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6423881	73	67	32	36	71	68
6423882	71	67	66	73	70	70
6423886	64	62	63	71	67	63
Blank	76	75	52	58	82	79
OPR	69	67	53	59	70	68

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6423881	54	69	73	72	79	81

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Surrogate Quality Control

6423882	85	70	73	68	70	66
6423886	90	66	70	68	77	84
Blank	81	85	90	80	89	93
OPR	80	70	73	74	81	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6423881	81	87	91	71	74	
6423882	82	86	88	68	71	
6423886	82	86	92	60	68	
Blank	93	102	109	71	77	
OPR	83	89	92	64	72	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct # 13013 Ap# 1269115

Sample# 6423873-86

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6650 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Castro</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-16 oz Jars	X	X			X	X								
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-SS Sleeves			X	X										
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-SS Sleeve			X	X										
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-SS Sleeve			X	X										
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature) <i>Don Min</i>		Date/Time 09/29/2011 / 1630		Received for Laboratory by: (Signature) <i>Har H/L LI</i> 9/30/11 0930										Laboratory: Lancaster Laboratories, Inc.					
Received by: (Signature)		Date/Time		Airbill No(s) 8767 9857 4434; 8767 9858 3520															

acc#13013 Cp#1269115

Sample# 6423373-SB

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 8010/8270A/741A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chroma EPA 7169	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8950 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Emeralds EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-126-SA7-SB-4.0-5.0	9/29/11	1133	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-127-SA7-SB-4.0-5.0	9/29/11	1000	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-177-SA7-SB-3.5	9/29/11	0845	SOIL	NONE	2-Encores									X												
SL-177-SA7-SB-3.0-4.0	9/29/11	0850	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X		X						X	X	X	X		
TB-092911	9/29/11	1430	WATER	NONE	4-40mL vials									X												
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:
		09/29/2011 / 1630																								Lancaster Laboratories, Inc.
Received by: (Signature)		Date/Time		Airbill No.(s)																						
				8767 9857 4434; 8767 9858 3520																						

Nicole Maljovec

From: Nicole Maljovec
Sent: Friday, September 30, 2011 10:10 PM
To: 'Bloisa, Peggy'
Subject: FW: COC for 9/29/2011- Surface samples are missing "-SS"
Attachments: COC_09_29_11.xlsx

One more and then I'm done. The SS is missing in the sample IDs for the surface samples. We added them in. If the -SS- shouldn't be included, please let me know.

Thanks!

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 8:15 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgesser, Todd; Zakowski, Cherie; Hartman, Pamela; Laura Rainey
Subject: COC for 9/29/2011

Subsurface sampling continued in Subarea 7. Surface sampling started in Subarea 8 South today.

See attached COC.

Peggy

Peggy Bloisa, P.G.
CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |
| Phone and Fax: (925) 296-8053 |

 Please consider the environment before printing this email.

9/30/2011

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/01/2011

Group Number: 1269322

SDG: DX145

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-008-SA8S-SS-0.0-0.5 Soil	6426134
SL-009-SA8S-SS-0.0-0.5 Soil	6426135
SL-010-SA8S-SS-0.0-0.5 Soil	6426136
SL-011-SA8S-SS-0.0-0.5 Soil	6426137
SL-012-SA8S-SS-0.0-0.5 Soil	6426138
SL-016-SA8S-SS-0.0-0.5 Soil	6426139
SL-017-SA8S-SS-0.0-0.5 Soil	6426140
SL-018-SA8S-SS-0.0-0.5 Soil	6426141
SL-019-SA8S-SS-0.0-0.5 Soil	6426142
SL-020-SA8S-SS-0.0-0.5 Soil	6426143
SL-021-SA8S-SS-0.0-0.5 Soil	6426144

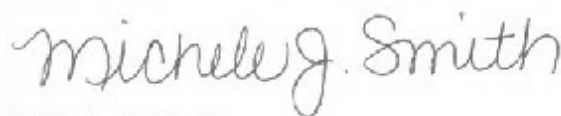
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0366 JQ	0.0271	1.07	1
11031	12378-PeCDD	40321-76-4	0.118 J	0.0297	5.34	1
11031	123478-HxCDD	39227-28-6	0.148 J	0.0353	5.34	1
11031	123678-HxCDD	57653-85-7	0.304 JB	0.0348	5.34	1
11031	123789-HxCDD	19408-74-3	0.269 J	0.0364	5.34	1
11031	1234678-HpCDD	35822-46-9	4.59 JB	0.0311	5.34	1
11031	OCDD	3268-87-9	32.0 B	0.0288	10.7	1
11031	2378-TCDF	51207-31-9	0.658 J	0.0803	1.07	1
11031	12378-PeCDF	57117-41-6	0.222 JB	0.0443	5.34	1
11031	23478-PeCDF	57117-31-4	1.64 JB	0.0444	5.34	1
11031	123478-HxCDF	70648-26-9	0.474 JB	0.0314	5.34	1
11031	123678-HxCDF	57117-44-9	0.285 JB	0.0274	5.34	1
11031	123789-HxCDF	72918-21-9	0.0528 JBQ	0.0316	5.34	1
11031	234678-HxCDF	60851-34-5	0.394 JB	0.0272	5.34	1
11031	1234678-HpCDF	67562-39-4	1.32 JB	0.0168	5.34	1
11031	1234789-HpCDF	55673-89-7	0.121 JBQ	0.0242	5.34	1
11031	OCDF	39001-02-0	1.84 JB	0.0247	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4510 SDG#: DX145-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/12/2011 12:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0281 U	0.0281	1.04	1
11031	12378-PeCDD	40321-76-4	0.0440 JQ	0.0234	5.21	1
11031	123478-HxCDD	39227-28-6	0.0738 J	0.0317	5.21	1
11031	123678-HxCDD	57653-85-7	0.137 JB	0.0316	5.21	1
11031	123789-HxCDD	19408-74-3	0.164 J	0.0508	5.21	1
11031	1234678-HpCDD	35822-46-9	2.62 JB	0.0245	5.21	1
11031	OCDD	3268-87-9	18.0 B	0.0306	10.4	1
11031	2378-TCDF	51207-31-9	0.173 J	0.0493	1.04	1
11031	12378-PeCDF	57117-41-6	0.0713 JB	0.0250	5.21	1
11031	23478-PeCDF	57117-31-4	0.403 JBQ	0.0249	5.21	1
11031	123478-HxCDF	70648-26-9	0.100 JB	0.0199	5.21	1
11031	123678-HxCDF	57117-44-9	0.0820 JBQ	0.0181	5.21	1
11031	123789-HxCDF	72918-21-9	0.0441 JBQ	0.0233	5.21	1
11031	234678-HxCDF	60851-34-5	0.120 JBQ	0.0192	5.21	1
11031	1234678-HpCDF	67562-39-4	0.591 JB	0.0200	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0552 JBQ	0.0335	5.21	1
11031	OCDF	39001-02-0	0.948 JB	0.0284	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/12/2011 13:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0495 JQ	0.0373	1.04	1
11031	12378-PeCDD	40321-76-4	0.187 JQ	0.0334	5.21	1
11031	123478-HxCDD	39227-28-6	0.115 JQ	0.0487	5.21	1
11031	123678-HxCDD	57653-85-7	0.430 JBQ	0.0478	5.21	1
11031	123789-HxCDD	19408-74-3	0.296 J	0.0461	5.21	1
11031	1234678-HpCDD	35822-46-9	5.41 B	0.0412	5.21	1
11031	OCDD	3268-87-9	35.5 B	0.0350	10.4	1
11031	2378-TCDF	51207-31-9	0.851 JQ	0.0759	1.04	1
11031	12378-PeCDF	57117-41-6	0.271 JBQ	0.0370	5.21	1
11031	23478-PeCDF	57117-31-4	1.10 JB	0.0377	5.21	1
11031	123478-HxCDF	70648-26-9	0.449 JB	0.0459	5.21	1
11031	123678-HxCDF	57117-44-9	0.281 JB	0.0354	5.21	1
11031	123789-HxCDF	72918-21-9	0.134 JB	0.0451	5.21	1
11031	234678-HxCDF	60851-34-5	0.438 JB	0.0370	5.21	1
11031	1234678-HpCDF	67562-39-4	1.31 JB	0.0204	5.21	1
11031	1234789-HpCDF	55673-89-7	0.128 JB	0.0334	5.21	1
11031	OCDF	39001-02-0	1.93 JB	0.0441	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 04:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0390 U	0.0390	1.06	1
11031	12378-PeCDD	40321-76-4	0.124 JQ	0.0356	5.29	1
11031	123478-HxCDD	39227-28-6	0.109 J	0.0460	5.29	1
11031	123678-HxCDD	57653-85-7	0.320 JB	0.0490	5.29	1
11031	123789-HxCDD	19408-74-3	0.268 J	0.0446	5.29	1
11031	1234678-HpCDD	35822-46-9	5.79 B	0.0390	5.29	1
11031	OCDD	3268-87-9	43.9 B	0.0349	10.6	1
11031	2378-TCDF	51207-31-9	0.451 J	0.0709	1.06	1
11031	12378-PeCDF	57117-41-6	0.167 JBQ	0.0389	5.29	1
11031	23478-PeCDF	57117-31-4	0.191 JBQ	0.0367	5.29	1
11031	123478-HxCDF	70648-26-9	0.276 JBQ	0.0357	5.29	1
11031	123678-HxCDF	57117-44-9	0.163 JBQ	0.0315	5.29	1
11031	123789-HxCDF	72918-21-9	0.0554 JBQ	0.0381	5.29	1
11031	234678-HxCDF	60851-34-5	0.300 JB	0.0343	5.29	1
11031	1234678-HpCDF	67562-39-4	1.21 JB	0.0220	5.29	1
11031	1234789-HpCDF	55673-89-7	0.120 JBQ	0.0324	5.29	1
11031	OCDF	39001-02-0	1.89 JB	0.0353	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 05:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	6.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0332 U	0.0332	1.05	1
11031	12378-PeCDD	40321-76-4	0.0769 JQ	0.0306	5.27	1
11031	123478-HxCDD	39227-28-6	0.141 JQ	0.0320	5.27	1
11031	123678-HxCDD	57653-85-7	0.204 JBQ	0.0337	5.27	1
11031	123789-HxCDD	19408-74-3	0.202 JQ	0.0496	5.27	1
11031	1234678-HpCDD	35822-46-9	3.22 JB	0.0323	5.27	1
11031	OCDD	3268-87-9	26.4 B	0.0276	10.5	1
11031	2378-TCDF	51207-31-9	0.195 JQ	0.0454	1.05	1
11031	12378-PeCDF	57117-41-6	0.144 JBQ	0.0273	5.27	1
11031	23478-PeCDF	57117-31-4	0.205 JBQ	0.0268	5.27	1
11031	123478-HxCDF	70648-26-9	0.246 JBQ	0.0303	5.27	1
11031	123678-HxCDF	57117-44-9	0.139 JB	0.0267	5.27	1
11031	123789-HxCDF	72918-21-9	0.0897 JBQ	0.0343	5.27	1
11031	234678-HxCDF	60851-34-5	0.235 JB	0.0285	5.27	1
11031	1234678-HpCDF	67562-39-4	0.803 JB	0.0173	5.27	1
11031	1234789-HpCDF	55673-89-7	0.0900 JBQ	0.0308	5.27	1
11031	OCDF	39001-02-0	1.62 JB	0.0334	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	56	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4514 SDG#: DX145-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 06:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0659 JQ	0.0452	1.03	1
11031	12378-PeCDD	40321-76-4	0.140 J	0.0444	5.14	1
11031	123478-HxCDD	39227-28-6	0.0844 J	0.0443	5.14	1
11031	123678-HxCDD	57653-85-7	0.267 JBQ	0.0450	5.14	1
11031	123789-HxCDD	19408-74-3	0.350 JQ	0.0690	5.14	1
11031	1234678-HpCDD	35822-46-9	3.04 JB	0.0459	5.14	1
11031	OCDD	3268-87-9	21.4 B	0.0413	10.3	1
11031	2378-TCDF	51207-31-9	0.498 JQ	0.0823	1.03	1
11031	12378-PeCDF	57117-41-6	0.590 JB	0.0447	5.14	1
11031	23478-PeCDF	57117-31-4	0.640 JB	0.0474	5.14	1
11031	123478-HxCDF	70648-26-9	0.417 JB	0.0431	5.14	1
11031	123678-HxCDF	57117-44-9	0.208 JB	0.0387	5.14	1
11031	123789-HxCDF	72918-21-9	0.114 JBQ	0.0507	5.14	1
11031	234678-HxCDF	60851-34-5	0.223 JB	0.0411	5.14	1
11031	1234678-HpCDF	67562-39-4	0.792 JB	0.0293	5.14	1
11031	1234789-HpCDF	55673-89-7	0.0855 JBQ	0.0515	5.14	1
11031	OCDF	39001-02-0	1.31 JB	0.0545	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	57	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 07:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0382 JQ	0.0357	1.04	1
11031	12378-PeCDD	40321-76-4	0.139 JQ	0.0314	5.22	1
11031	123478-HxCDD	39227-28-6	0.123 J	0.0367	5.22	1
11031	123678-HxCDD	57653-85-7	0.345 JBQ	0.0394	5.22	1
11031	123789-HxCDD	19408-74-3	0.343 JQ	0.0609	5.22	1
11031	1234678-HpCDD	35822-46-9	4.94 JB	0.0352	5.22	1
11031	OCDD	3268-87-9	34.3 B	0.0350	10.4	1
11031	2378-TCDF	51207-31-9	0.699 J	0.0776	1.04	1
11031	12378-PeCDF	57117-41-6	0.326 JB	0.0412	5.22	1
11031	23478-PeCDF	57117-31-4	0.350 JBQ	0.0418	5.22	1
11031	123478-HxCDF	70648-26-9	0.488 JBQ	0.0389	5.22	1
11031	123678-HxCDF	57117-44-9	0.316 JBQ	0.0311	5.22	1
11031	123789-HxCDF	72918-21-9	0.113 JBQ	0.0393	5.22	1
11031	234678-HxCDF	60851-34-5	0.450 JB	0.0314	5.22	1
11031	1234678-HpCDF	67562-39-4	1.12 JB	0.0206	5.22	1
11031	1234789-HpCDF	55673-89-7	0.144 JBQ	0.0395	5.22	1
11031	OCDF	39001-02-0	2.14 JB	0.0375	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 08:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0471 U	0.0471	1.02	1
11031	12378-PeCDD	40321-76-4	0.0931 J	0.0668	5.09	1
11031	123478-HxCDD	39227-28-6	0.102 J	0.0400	5.09	1
11031	123678-HxCDD	57653-85-7	0.274 JB	0.0423	5.09	1
11031	123789-HxCDD	19408-74-3	0.278 JQ	0.0619	5.09	1
11031	1234678-HpCDD	35822-46-9	4.00 JB	0.0330	5.09	1
11031	OCDD	3268-87-9	36.1 B	0.0308	10.2	1
11650	2378-TCDF-Conf	51207-31-9	9.38 C	0.112	1.02	1
11031	12378-PeCDF	57117-41-6	8.38 B	0.110	5.09	1
11031	23478-PeCDF	57117-31-4	5.72 B	0.122	5.09	1
11031	123478-HxCDF	70648-26-9	6.21 B	0.0760	5.09	1
11031	123678-HxCDF	57117-44-9	1.61 JB	0.0614	5.09	1
11031	123789-HxCDF	72918-21-9	0.718 JB	0.0889	5.09	1
11031	234678-HxCDF	60851-34-5	1.40 JBQ	0.0674	5.09	1
11031	1234678-HpCDF	67562-39-4	1.50 JB	0.0214	5.09	1
11031	1234789-HpCDF	55673-89-7	0.617 JBQ	0.0449	5.09	1
11031	OCDF	39001-02-0	2.24 JB	0.0482	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-2378-TCDF-Conf	61	24 - 169
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	89	17 - 157
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	56	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 09:23	Joseph D Anderson	1
11650	Dioxins/Furans in Solids- Conf	EPA 1613B	1	11280002	10/17/2011 18:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0258 U	0.0258	1.02	1
11031	12378-PeCDD	40321-76-4	0.0518 JQ	0.0242	5.08	1
11031	123478-HxCDD	39227-28-6	0.0545 JQ	0.0270	5.08	1
11031	123678-HxCDD	57653-85-7	0.128 JBQ	0.0279	5.08	1
11031	123789-HxCDD	19408-74-3	0.0989 JQ	0.0249	5.08	1
11031	1234678-HpCDD	35822-46-9	1.64 JB	0.0254	5.08	1
11031	OCDD	3268-87-9	9.43 JB	0.0237	10.2	1
11031	2378-TCDF	51207-31-9	0.0445 U	0.0445	1.02	1
11031	12378-PeCDF	57117-41-6	0.0680 JBQ	0.0230	5.08	1
11031	23478-PeCDF	57117-31-4	0.361 JB	0.0244	5.08	1
11031	123478-HxCDF	70648-26-9	0.116 JBQ	0.0195	5.08	1
11031	123678-HxCDF	57117-44-9	0.0971 JBQ	0.0170	5.08	1
11031	123789-HxCDF	72918-21-9	0.0259 JBQ	0.0226	5.08	1
11031	234678-HxCDF	60851-34-5	0.139 JB	0.0186	5.08	1
11031	1234678-HpCDF	67562-39-4	0.545 JB	0.0156	5.08	1
11031	1234789-HpCDF	55673-89-7	0.0534 JBQ	0.0293	5.08	1
11031	OCDF	39001-02-0	1.03 JB	0.0321	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 10:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0303 U	0.0303	1.06	1
11031	12378-PeCDD	40321-76-4	0.0673 J	0.0285	5.28	1
11031	123478-HxCDD	39227-28-6	0.0740 JQ	0.0350	5.28	1
11031	123678-HxCDD	57653-85-7	0.208 JB	0.0377	5.28	1
11031	123789-HxCDD	19408-74-3	0.141 J	0.0326	5.28	1
11031	1234678-HpCDD	35822-46-9	3.16 JB	0.0340	5.28	1
11031	OCDD	3268-87-9	18.9 B	0.0209	10.6	1
11031	2378-TCDF	51207-31-9	0.344 J	0.0484	1.06	1
11031	12378-PeCDF	57117-41-6	0.0976 JBQ	0.0265	5.28	1
11031	23478-PeCDF	57117-31-4	0.239 JBQ	0.0275	5.28	1
11031	123478-HxCDF	70648-26-9	0.256 JB	0.0309	5.28	1
11031	123678-HxCDF	57117-44-9	0.169 JB	0.0255	5.28	1
11031	123789-HxCDF	72918-21-9	0.0602 JBQ	0.0341	5.28	1
11031	234678-HxCDF	60851-34-5	0.290 JB	0.0275	5.28	1
11031	1234678-HpCDF	67562-39-4	0.796 JB	0.0157	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0460 JBQ	0.0270	5.28	1
11031	OCDF	39001-02-0	1.32 JBQ	0.0407	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 11:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0343 JQ	0.0320	1.06	1
11031	12378-PeCDD	40321-76-4	0.0549 JQ	0.0301	5.28	1
11031	123478-HxCDD	39227-28-6	0.0810 J	0.0399	5.28	1
11031	123678-HxCDD	57653-85-7	0.255 JB	0.0422	5.28	1
11031	123789-HxCDD	19408-74-3	0.257 JQ	0.0511	5.28	1
11031	1234678-HpCDD	35822-46-9	4.66 JB	0.0374	5.28	1
11031	OCDD	3268-87-9	37.9 B	0.0315	10.6	1
11031	2378-TCDF	51207-31-9	0.219 J	0.0519	1.06	1
11031	12378-PeCDF	57117-41-6	0.0758 JBQ	0.0266	5.28	1
11031	23478-PeCDF	57117-31-4	0.0837 JB	0.0263	5.28	1
11031	123478-HxCDF	70648-26-9	0.205 JBQ	0.0263	5.28	1
11031	123678-HxCDF	57117-44-9	0.109 JBQ	0.0227	5.28	1
11031	123789-HxCDF	72918-21-9	0.0309 JB	0.0260	5.28	1
11031	234678-HxCDF	60851-34-5	0.146 JBQ	0.0218	5.28	1
11031	1234678-HpCDF	67562-39-4	1.17 JB	0.0184	5.28	1
11031	1234789-HpCDF	55673-89-7	0.115 JBQ	0.0273	5.28	1
11031	OCDF	39001-02-0	2.83 JB	0.0368	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	60	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4520 SDG#: DX145-20*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 12:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11285162401A Moisture Content by 160.3	Sample number(s): 6426134-6426142				102		80-120		
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426143-6426144				102		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11280002	Sample number(s): 6426134-6426144								
2378-TCDD	0.0413 U	0.0413	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0372 U	0.0372	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0238 U	0.0238	5.00	ng/kg	104		70-164		
123678-HxCDD	0.0498 J	0.0235	5.00	ng/kg	101		76-134		
123789-HxCDD	0.0242 U	0.0242	5.00	ng/kg	99		64-162		
1234678-HpCDD	0.308 J	0.0298	5.00	ng/kg	98		70-140		
OCDD	0.625 J	0.0211	10.0	ng/kg	98		78-144		
2378-TCDF	0.0379 U	0.0379	1.00	ng/kg	104		75-158		
2378-TCDF-Conf	0.0480 U	0.0480	1.00	ng/kg	104		75-158		
12378-PeCDF	0.0197 J	0.0189	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0656 J	0.0189	5.00	ng/kg	99		68-160		
123478-HxCDF	0.0739 J	0.0214	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0577 J	0.0185	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0378 J	0.0238	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0899 J	0.0202	5.00	ng/kg	99		70-156		
1234678-HpCDF	0.210 J	0.0107	5.00	ng/kg	96		82-122		
1234789-HpCDF	0.0464 J	0.0203	5.00	ng/kg	99		78-138		
OCDF	0.226 J	0.0378	10.0	ng/kg	98		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11285162401A Moisture Content by 160.3	Sample number(s): 6426134-6426142					BKG: P426118 2.2	2.2	0 (1)	20
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426143-6426144					BKG: P426127 6.6	5.9	11	20

*- Outside of specification

**This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11280002	Sample number(s): 6426134-6426144 UNSPK: P421344								
2378-TCDD	99	102	67-158	3	25				
12378-PeCDD	101	101	70-142	0	25				
123478-HxCDD	101	100	70-164	1	25				
123678-HxCDD	96	96	76-134	0	25				
123789-HxCDD	98	99	64-162	1	25				
1234678-HpCDD	119	106	70-140	11	25				
OCDD	225*	142	78-144	35*	25				
2378-TCDF	96	95	75-158	0	25				
2378-TCDF-Conf	96	95	75-158	0	25				
12378-PeCDF	99	98	80-134	0	25				
23478-PeCDF	96	97	68-160	1	25				
123478-HxCDF	98	97	72-134	0	25				
123678-HxCDF	98	96	84-130	2	25				
123789-HxCDF	98	94	78-130	4	25				
234678-HxCDF	98	98	70-156	0	25				
1234678-HpCDF	98	96	82-122	2	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	101	97	63-170	4	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11280002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6426134	76	69	60	68	69	69
6426135	74	64	63	70	63	63
6426136	78	66	57	69	65	64
6426137	74	65	61	67	63	64
6426138	76	67	64	72	65	65
6426139	78	67	66	75	69	67
6426140	78	69	54	67	67	63
6426141	72	62	59	70	60	56
6426142	75	65	62	72	66	64
6426143	74	64	59	70	63	60
6426144	74	66	57	65	65	65
Blank	77	71	67	78	73	75
MS	74	65	64	72	67	64
MSD	75	68	69	78	71	69
OPR	67	62	58	71	64	61
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6426134	86	69	71	74	84	89

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Surrogate Quality Control

6426135	84	61	61	71	76	76
6426136	88	60	62	75	80	82
6426137	78	63	64	70	74	74
6426138	88	64	63	74	78	77
6426139	87	64	59	71	80	81
6426140	92	60	58	76	83	80
6426141	95	54	53	70	78	75
6426142	96	61	61	73	80	80
6426143	88	59	59	72	78	74
6426144	79	64	62	71	77	74
Blank	113	76	77	81	86	91
MS	91	64	69	71	83	88
MSD	97	72	76	74	80	86
OPR	103	63	66	72	84	88
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-2378-TCDF-Conf
6426134	84	88	93	73	76	
6426135	48	85	85	71	72	
6426136	81	85	89	70	75	
6426137	79	84	82	69	70	
6426138	56	87	85	74	76	
6426139	57	87	82	75	74	
6426140	48	92	92	74	79	
6426141	48	86	89		75	61
6426142	86	88	90	71	75	
6426143	82	86	87	70	74	
6426144	60	85	83	72	74	
Blank	89	104	115	70	79	66
MS	82	85	93	70	73	70
MSD	82	91	101	73	76	73
OPR	88	94	106	60	70	60
Limits:	28-130	23-140	17-157	24-169	24-185	24-169

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1269332 sample# 6426134-44

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels † Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 601/60208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6550 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signature: <i>Sam Jones</i>																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-SS Sleeve			X	X									
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-SS Sleeve			X	X									
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-SS Sleeve			X	X									

Relinquished by: (Signature) *[Signature]*

Received by: (Signature) *[Signature]*

Date/Time: 09/30/2011 / 1630

Date/Time: 10/1/2011 / 0945

Received for Laboratory by: (Signature)

Airbill No.(s)
8767 9857 4445; 8767 9857 4456

Laboratory:
Lancaster Laboratories, Inc.

The surface code SS was added to the samples listed above. NLM 10/4/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/21/2011

Group Number: 1272534

SDG: DE273

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-023-SA7-SB-2.0-3.0 Soil
SL-060-SA7-SB-2.5-3.5 Soil
SL-069-SA7-SB-2.5-3.5 Soil
SL-148-SA7-SB-0.0-1.0 Soil
SL-026-SA5DS-SB-4.0-5.0 Soil
SL-026-SA5DS-SB-9.0-10.0 Soil
SL-040-SA5DS-SB-4.0-5.0 Soil
SL-040-SA5DS-SB-9.0-10.0 Soil
SL-016-SA8S-SB-4.0-5.0 Soil
TB-102011 WaterLancaster Labs (LLI) #6445463
6445464
6445465
6445466
6445467
6445468
6445469
6445470
6445471
6445473

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

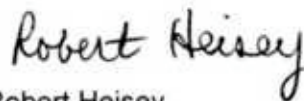
COPY TO

1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 J	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.9	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.62 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.1 U	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B	mg/kg	mg/kg	mg/kg	
	mod					
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.3 J	0.2	1.1	25.46
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34	U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40	U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34	U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34	U	0.34	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	100	U	100	520	1
10501	Isopropanol	67-63-0	100	U	100	520	1
10501	Methanol	67-56-1	100	U	100	520	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2	U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2	U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2	U	5.2	10	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.6	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.66	J	0.41	1.2	1
10199	EFH (C15-C20)	n.a.	2.8		0.41	1.2	1
10199	EFH (C21-C30)	n.a.	13		0.41	1.2	1
10199	EFH (C30 - C40)	n.a.	22		0.41	1.2	1
10199	EFH (C8-C11)	n.a.	0.41	U	0.41	1.2	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,100		5.97	19.7	1
07914	Boron	7440-42-8	6.14		0.355	4.93	1
01650	Calcium	7440-70-2	2,530		2.47	19.7	1
01654	Iron	7439-89-6	19,000		2.58	19.7	1
01656	Lithium	7439-93-2	27.2		0.61	2.0	1
01657	Magnesium	7439-95-4	4,510		0.434	9.87	1
06958	Manganese	7439-96-5	303		0.0355	0.493	1
10145	Phosphorus	7723-14-0	400		0.345	9.87	1
01662	Potassium	7440-09-7	3,000		11.2	49.3	1
01667	Sodium	7440-23-5	73.6	J	5.87	98.7	1
07968	Strontium	7440-24-6	14.0		0.0247	0.493	1
06969	Tin	7440-31-5	2.51	J	0.316	9.87	1
06970	Titanium	7440-32-6	1,060		0.0701	0.987	1
10146	Zirconium	7440-67-7	3.26	J	0.454	4.93	1
		SW-846 6020	mg/kg		mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0767 U	0.0767	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.51	0.0829	0.415	2
06126	Barium	7440-39-3	81.9	0.110	0.415	2
06127	Beryllium	7440-41-7	0.467	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.149	0.0456	0.104	2
06131	Chromium	7440-47-3	14.7	0.124	0.415	2
06132	Cobalt	7440-48-4	5.10	0.0207	0.104	2
06133	Copper	7440-50-8	6.73	0.0829	0.415	2
06135	Lead	7439-92-1	4.68	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.457	0.0518	0.104	2
06139	Nickel	7440-02-0	9.30	0.104	0.415	2
06141	Selenium	7782-49-2	0.137 J	0.0601	0.415	2
06142	Silver	7440-22-4	0.0253 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.243	0.0311	0.104	2
06148	Vanadium	7440-62-2	29.5	0.0228	0.104	2
06149	Zinc	7440-66-6	55.9	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.82	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.4	0.82	1.5	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.58	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	3.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-023-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 22:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:01	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/27/2011 16:24	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:05	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:06	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:12	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:33	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 16:34	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 01:13	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 18:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 16:07	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:45	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	24.51
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34	U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41	U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34	U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34	U	0.34	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	100	U	100	520	1
10501	Isopropanol	67-63-0	100	U	100	520	1
10501	Methanol	67-56-1	100	U	100	520	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2	U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2	U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2	U	5.2	10	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42	U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.83	J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	4.3		0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	8.2		0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42	U	0.42	1.3	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,400		6.21	20.5	1
07914	Boron	7440-42-8	5.18		0.370	5.13	1
01650	Calcium	7440-70-2	2,240		2.57	20.5	1
01654	Iron	7439-89-6	17,200		2.68	20.5	1
01656	Lithium	7439-93-2	17.2		0.64	2.1	1
01657	Magnesium	7439-95-4	3,820		0.452	10.3	1
06958	Manganese	7439-96-5	168		0.0370	0.513	1
10145	Phosphorus	7723-14-0	98.7		0.359	10.3	1
01662	Potassium	7440-09-7	945		11.6	51.3	1
01667	Sodium	7440-23-5	156		6.11	103	1
07968	Strontium	7440-24-6	15.5		0.0257	0.513	1
06969	Tin	7440-31-5	2.62	J	0.329	10.3	1
06970	Titanium	7440-32-6	968		0.0729	1.03	1
10146	Zirconium	7440-67-7	2.54	J	0.472	5.13	1
		SW-846 6020	mg/kg		mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0752 U	0.0752	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.76	0.0813	0.407	2
06126	Barium	7440-39-3	36.1	0.108	0.407	2
06127	Beryllium	7440-41-7	0.398	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.0447 U	0.0447	0.102	2
06131	Chromium	7440-47-3	13.9	0.122	0.407	2
06132	Cobalt	7440-48-4	3.37	0.0203	0.102	2
06133	Copper	7440-50-8	4.05	0.0813	0.407	2
06135	Lead	7439-92-1	2.85	0.0104	0.203	2
06138	Molybdenum	7439-98-7	0.226	0.0508	0.102	2
06139	Nickel	7440-02-0	10.8	0.102	0.407	2
06141	Selenium	7782-49-2	0.0657 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0206 J	0.0144	0.102	2
06145	Thallium	7440-28-0	0.144	0.0305	0.102	2
06148	Vanadium	7440-62-2	25.5	0.0224	0.102	2
06149	Zinc	7440-66-6	27.1	0.569	3.05	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.2	0.83	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.4 J	0.83	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.68	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-060-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:22	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:33	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 22:29	Laura M Krieger	24.51
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:29	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:46	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:48	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:02	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:28	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 10:35	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:46	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.68 U	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.79 J	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2 J	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	26.65
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.53 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	6.5	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	12	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,700	6.18	20.4	1
07914	Boron	7440-42-8	5.96	0.368	5.11	1
01650	Calcium	7440-70-2	2,750	2.55	20.4	1
01654	Iron	7439-89-6	23,500	2.67	20.4	1
01656	Lithium	7439-93-2	25.2	0.63	2.0	1
01657	Magnesium	7439-95-4	6,180	0.449	10.2	1
06958	Manganese	7439-96-5	322	0.0368	0.511	1
10145	Phosphorus	7723-14-0	359	0.357	10.2	1
01662	Potassium	7440-09-7	3,780	11.5	51.1	1
01667	Sodium	7440-23-5	78.9 J	6.08	102	1
07968	Strontium	7440-24-6	14.3	0.0255	0.511	1
06969	Tin	7440-31-5	2.68 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,240	0.0725	1.02	1
10146	Zirconium	7440-67-7	3.10 J	0.470	5.11	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0771 U	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.63	0.0833	0.417	2
06126	Barium	7440-39-3	82.7	0.110	0.417	2
06127	Beryllium	7440-41-7	0.585	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.0879 J	0.0458	0.104	2
06131	Chromium	7440-47-3	22.9	0.125	0.417	2
06132	Cobalt	7440-48-4	6.74	0.0208	0.104	2
06133	Copper	7440-50-8	10.0	0.0833	0.417	2
06135	Lead	7439-92-1	4.83	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.347	0.0521	0.104	2
06139	Nickel	7440-02-0	15.8	0.104	0.417	2
06141	Selenium	7782-49-2	0.132 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0376 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.263	0.0313	0.104	2
06148	Vanadium	7440-62-2	43.1	0.0229	0.104	2
06149	Zinc	7440-66-6	56.4	0.583	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0070 U	0.0070	0.0992	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.87	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-069-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:47	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 16:05	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 23:07	Laura M Krieger	26.65
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:08	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:09	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:45	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:41	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:59	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:26	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:25	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:50	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:50	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:50	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:49	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 10:41	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:47	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.1 J	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.8 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	8.1 J	6.2	19	1
10138	Chrysene	218-01-9	0.38 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Miscellaneous SW-846 8015B						
10501	Ethanol	64-17-5	110 U	110	530	1
10501	Isopropanol	67-63-0	110 U	110	530	1
10501	Methanol	67-56-1	110 U	110	530	1
GC Miscellaneous SW-846 8015B modified						
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11	1
GC Petroleum SW-846 8015B						
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum SW-846 8015B modified						
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.71 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	5.4	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	13	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	14,100	6.24	20.6	1
07914	Boron	7440-42-8	4.61 J	0.371	5.15	1
01650	Calcium	7440-70-2	2,570	2.58	20.6	1
01654	Iron	7439-89-6	19,700	2.69	20.6	1
01656	Lithium	7439-93-2	21.6	0.64	2.1	1
01657	Magnesium	7439-95-4	4,600	0.454	10.3	1
06958	Manganese	7439-96-5	253	0.0371	0.515	1
10145	Phosphorus	7723-14-0	258	0.361	10.3	1
01662	Potassium	7440-09-7	2,220	11.6	51.5	1
01667	Sodium	7440-23-5	74.8 J	6.13	103	1
07968	Strontium	7440-24-6	14.7	0.0258	0.515	1
06969	Tin	7440-31-5	2.69 J	0.330	10.3	1
06970	Titanium	7440-32-6	982	0.0732	1.03	1
10146	Zirconium	7440-67-7	2.66 J	0.474	5.15	1
SW-846 6020						
06124	Antimony	7440-36-0	0.0741 U	0.0741	0.200	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.44	0.0801	0.401	2
06126	Barium	7440-39-3	82.5	0.106	0.401	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	0.607	0.0160	0.100	2
06128	Cadmium	7440-43-9	0.0780 J	0.0441	0.100	2
06131	Chromium	7440-47-3	18.2	0.120	0.401	2
06132	Cobalt	7440-48-4	6.03	0.0200	0.100	2
06133	Copper	7440-50-8	7.01	0.0801	0.401	2
06135	Lead	7439-92-1	5.48	0.0102	0.200	2
06138	Molybdenum	7439-98-7	0.466	0.0501	0.100	2
06139	Nickel	7440-02-0	11.7	0.100	0.401	2
06141	Selenium	7782-49-2	0.147 J	0.0581	0.401	2
06142	Silver	7440-22-4	0.0344 J	0.0142	0.100	2
06145	Thallium	7440-28-0	0.227	0.0300	0.100	2
06148	Vanadium	7440-62-2	35.8	0.0220	0.100	2
06149	Zinc	7440-66-6	52.2	0.561	3.00	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.27 J	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.69	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:14	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 23:02	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:57	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 01:12	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:04	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:49	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 11:02	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:48	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.1 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.4	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.65 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,700	6.51	21.5	1
07914	Boron	7440-42-8	13.4	0.387	5.38	1
01650	Calcium	7440-70-2	5,730	2.69	21.5	1
01654	Iron	7439-89-6	28,500	14.0	108	5
01656	Lithium	7439-93-2	40.0	0.67	2.2	1
01657	Magnesium	7439-95-4	8,240	0.474	10.8	1
06958	Manganese	7439-96-5	323	0.0387	0.538	1
10145	Phosphorus	7723-14-0	588	0.377	10.8	1
01662	Potassium	7440-09-7	4,200	12.2	53.8	1
01667	Sodium	7440-23-5	164	6.40	108	1
07968	Strontium	7440-24-6	23.1	0.0269	0.538	1
06969	Tin	7440-31-5	2.74 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,380	0.0764	1.08	1
10146	Zirconium	7440-67-7	7.39	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0804 U	0.0804	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.73	0.0870	0.435	2
06126	Barium	7440-39-3	70.5	0.115	0.435	2
06127	Beryllium	7440-41-7	0.578	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.0890 J	0.0478	0.109	2
06131	Chromium	7440-47-3	27.9	0.130	0.435	2
06132	Cobalt	7440-48-4	8.63	0.0217	0.109	2
06133	Copper	7440-50-8	10.8	0.0870	0.435	2
06135	Lead	7439-92-1	6.65	0.0111	0.217	2
06138	Molybdenum	7439-98-7	0.303	0.0543	0.109	2
06139	Nickel	7440-02-0	14.4	0.109	0.435	2
06141	Selenium	7782-49-2	0.206 J	0.0630	0.435	2
06142	Silver	7440-22-4	0.0154 U	0.0154	0.109	2
06145	Thallium	7440-28-0	0.269	0.0326	0.109	2
06148	Vanadium	7440-62-2	56.7	0.0239	0.109	2
06149	Zinc	7440-66-6	67.9	0.609	3.26	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.7	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.20	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	8.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:37	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112980018A	10/26/2011 19:33	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112980018A	10/26/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:20	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.0 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	1.8 J	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,100	6.64	22.0	1
07914	Boron	7440-42-8	17.5	0.395	5.49	1
01650	Calcium	7440-70-2	6,120	2.74	22.0	1
01654	Iron	7439-89-6	37,300	14.3	110	5
01656	Lithium	7439-93-2	52.9	0.68	2.2	1
01657	Magnesium	7439-95-4	10,500	0.483	11.0	1
06958	Manganese	7439-96-5	250	0.0395	0.549	1
10145	Phosphorus	7723-14-0	613	0.384	11.0	1
01662	Potassium	7440-09-7	6,250	12.4	54.9	1
01667	Sodium	7440-23-5	209	6.53	110	1
07968	Strontium	7440-24-6	31.9	0.0274	0.549	1
06969	Tin	7440-31-5	2.98 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,590	0.0779	1.10	1
10146	Zirconium	7440-67-7	7.92	0.505	5.49	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0880 J	0.0812	0.220	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.86	0.0878	0.439	2
06126	Barium	7440-39-3	103	0.116	0.439	2
06127	Beryllium	7440-41-7	0.762	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.108 J	0.0483	0.110	2
06131	Chromium	7440-47-3	35.9	0.132	0.439	2
06132	Cobalt	7440-48-4	8.11	0.0220	0.110	2
06133	Copper	7440-50-8	20.6	0.0878	0.439	2
06135	Lead	7439-92-1	9.82	0.0112	0.220	2
06138	Molybdenum	7439-98-7	0.165	0.0549	0.110	2
06139	Nickel	7440-02-0	22.5	0.110	0.439	2
06141	Selenium	7782-49-2	0.344 J	0.0637	0.439	2
06142	Silver	7440-22-4	0.0195 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.395	0.0329	0.110	2
06148	Vanadium	7440-62-2	67.2	0.0241	0.110	2
06149	Zinc	7440-66-6	98.9	0.615	3.29	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0142 J	0.0077	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	9.1	0.88	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.13	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:02	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:19	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:04	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:23	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/31/2011 06:46	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 13:58	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72	U 0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4	U 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	7.7	J 6.4	19	1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.3	J 6.4	19	1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8	1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8	1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8	1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42	U 0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,000	6.53	21.6	1
07914	Boron	7440-42-8	12.2	0.389	5.40	1
01650	Calcium	7440-70-2	3,610	2.70	21.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,900	14.1	108	5
01656	Lithium	7439-93-2	31.3	0.67	2.2	1
01657	Magnesium	7439-95-4	7,700	0.475	10.8	1
06958	Manganese	7439-96-5	295	0.0389	0.540	1
10145	Phosphorus	7723-14-0	372	0.378	10.8	1
01662	Potassium	7440-09-7	3,930	12.2	54.0	1
01667	Sodium	7440-23-5	903	6.42	108	1
07968	Strontium	7440-24-6	34.3	0.0270	0.540	1
06969	Tin	7440-31-5	2.92 J	0.346	10.8	1
06970	Titanium	7440-32-6	1,330	0.0767	1.08	1
10146	Zirconium	7440-67-7	8.67	0.497	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0827 J	0.0799	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.45	0.0864	0.432	2
06126	Barium	7440-39-3	107	0.114	0.432	2
06127	Beryllium	7440-41-7	0.852	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.0595 J	0.0475	0.108	2
06131	Chromium	7440-47-3	36.9	0.130	0.432	2
06132	Cobalt	7440-48-4	10.5	0.0216	0.108	2
06133	Copper	7440-50-8	12.8	0.0864	0.432	2
06135	Lead	7439-92-1	8.46	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.606	0.0540	0.108	2
06139	Nickel	7440-02-0	19.5	0.108	0.432	2
06141	Selenium	7782-49-2	0.112 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0407 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.353	0.0324	0.108	2
06148	Vanadium	7440-62-2	70.5	0.0238	0.108	2
06149	Zinc	7440-66-6	69.5	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	25.0	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.2	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.05	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:28	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:52	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:23	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:27	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:02	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:02	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:42	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 21:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	7.7 J	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,800	6.38	21.1	1
07914	Boron	7440-42-8	9.92	0.380	5.27	1
01650	Calcium	7440-70-2	3,970	2.64	21.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	31,200	13.8	105	5
01656	Lithium	7439-93-2	30.1	0.65	2.1	1
01657	Magnesium	7439-95-4	7,470	0.464	10.5	1
06958	Manganese	7439-96-5	339	0.0380	0.527	1
10145	Phosphorus	7723-14-0	467	0.369	10.5	1
01662	Potassium	7440-09-7	2,760	11.9	52.7	1
01667	Sodium	7440-23-5	848	6.27	105	1
07968	Strontium	7440-24-6	28.2	0.0264	0.527	1
06969	Tin	7440-31-5	2.92 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,240	0.0748	1.05	1
10146	Zirconium	7440-67-7	8.22	0.485	5.27	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0796 U	0.0796	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.47	0.0860	0.430	2
06126	Barium	7440-39-3	90.8	0.114	0.430	2
06127	Beryllium	7440-41-7	0.729	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.0473 U	0.0473	0.108	2
06131	Chromium	7440-47-3	39.9	0.129	0.430	2
06132	Cobalt	7440-48-4	10.7	0.0215	0.108	2
06133	Copper	7440-50-8	10.4	0.0860	0.430	2
06135	Lead	7439-92-1	7.86	0.0110	0.215	2
06138	Molybdenum	7439-98-7	0.471	0.0538	0.108	2
06139	Nickel	7440-02-0	19.3	0.108	0.430	2
06141	Selenium	7782-49-2	0.164 J	0.0624	0.430	2
06142	Silver	7440-22-4	0.0203 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.280	0.0323	0.108	2
06148	Vanadium	7440-62-2	67.5	0.0237	0.108	2
06149	Zinc	7440-66-6	62.7	0.602	3.23	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0141 J	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	17.1	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.35	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:53	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:31	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:05	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL409 SDG#: DE273-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:05	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:05	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:22	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:54	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 14:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.5 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,400	6.63	21.9	1
07914	Boron	7440-42-8	9.65	0.395	5.48	1
01650	Calcium	7440-70-2	11,200	2.74	21.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,900	2.86	21.9	1
01656	Lithium	7439-93-2	24.6	0.68	2.2	1
01657	Magnesium	7439-95-4	4,600	0.482	11.0	1
06958	Manganese	7439-96-5	403	0.0395	0.548	1
10145	Phosphorus	7723-14-0	300	0.384	11.0	1
01662	Potassium	7440-09-7	3,940	12.4	54.8	1
01667	Sodium	7440-23-5	83.0 J	6.52	110	1
07968	Strontium	7440-24-6	21.1	0.0274	0.548	1
06969	Tin	7440-31-5	2.71 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,150	0.0779	1.10	1
10146	Zirconium	7440-67-7	4.78 J	0.504	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0780 U	0.0780	0.211	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.12	0.0843	0.422	2
06126	Barium	7440-39-3	116	0.112	0.422	2
06127	Beryllium	7440-41-7	0.735	0.0169	0.105	2
06128	Cadmium	7440-43-9	0.176	0.0464	0.105	2
06131	Chromium	7440-47-3	22.5	0.127	0.422	2
06132	Cobalt	7440-48-4	8.16	0.0211	0.105	2
06133	Copper	7440-50-8	12.1	0.0843	0.422	2
06135	Lead	7439-92-1	6.92	0.0108	0.211	2
06138	Molybdenum	7439-98-7	0.490	0.0527	0.105	2
06139	Nickel	7440-02-0	16.1	0.105	0.422	2
06141	Selenium	7782-49-2	0.0647 J	0.0612	0.422	2
06142	Silver	7440-22-4	0.0377 J	0.0150	0.105	2
06145	Thallium	7440-28-0	0.313	0.0316	0.105	2
06148	Vanadium	7440-62-2	43.7	0.0232	0.105	2
06149	Zinc	7440-66-6	62.0	0.590	3.16	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.1	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.17	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 02:19	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 21:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 15:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 12:15	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-102011 Water
SSFL Area IV Collocated Soil Sampling
TB-102011

LLI Sample # WW 6445473
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

TB120 SDG#: DE273-11TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471								
Aniline	170 U	170.	500	ug/kg	63		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	85		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	93		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	95		73-114		
Carbazole	17 U	17.	170	ug/kg	101		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	100		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	42		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	87		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	85		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	71		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	92		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	96		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	82		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	33		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	97		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	100		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	77		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	76		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	105		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	96		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	96		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	87		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	84		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	82		61-109		
Isophorone	17 U	17.	170	ug/kg	92		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	93		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	102		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	96		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	81		49-98		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Nitrobenzene	17 U	17.	170	ug/kg	91		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	100		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	85		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	100		51-117		
Phenol	17 U	17.	170	ug/kg	96		58-112		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	101		78-111		
Batch number: 11295SLC026 Sample number(s): 6445463-6445471									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	89		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	81		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	88		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	93		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	86		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	91		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	86		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	86		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	94		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	87		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	89		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	96		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	91		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	90		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	103		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	86		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	94		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	99		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	88		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		
Batch number: 11299A16A Sample number(s): 6445463-6445465									
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	74	75	67-119	2	30
Batch number: 11300A20A Sample number(s): 6445473									
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 112980018A Sample number(s): 6445467									
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	100		85-115		
Batch number: 112990025A Sample number(s): 6445463-6445471									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	85	61	36-106	32*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	117		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	153*		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112970037A	Sample number(s): 6445463-6445466								
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	100		68-129		
Batch number: 112980042A	Sample number(s): 6445463-6445466								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 112990013A	Sample number(s): 6445463-6445466								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	102		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		69-109		
Batch number: 113000011A	Sample number(s): 6445463-6445466								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	96		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	99		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	99		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	88		49-107		
Batch number: 112971026003A	Sample number(s): 6445463-6445471								
Antimony	0.0705 U	0.0705	0.190	mg/kg	79		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	105		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	104		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	102		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	112		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	107		81-110		
Lead	0.0121 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	101		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	103		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	100		82-112		
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.533 U	0.533	2.86	mg/kg	99		82-110		
Batch number: 112971026003B	Sample number(s): 6445463-6445471								
Selenium	0.0552 U	0.0552	0.381	mg/kg	101		79-110		
Batch number: 112971026003C	Sample number(s): 6445463-6445471								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	101		80-110		
Batch number: 112971026003D	Sample number(s): 6445463-6445471								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 112975708006	Sample number(s): 6445463-6445471								
Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Boron	0.447 J	0.360	5.00	mg/kg	102		83-110		
Calcium	17.2 J	2.50	20.0	mg/kg	95		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	2.05 J	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0480 J	0.0360	0.500	mg/kg	101		85-116		
Phosphorus	1.14 J	0.350	10.0	mg/kg	103		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	103		76-110		
Strontium	0.0770 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.18 J	0.320	10.0	mg/kg	94		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	91		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	101		80-120		
Batch number: 112975711003	Sample number(s): 6445463-6445471								
Mercury	0.0070 U	0.0070	0.0989	mg/kg	111		83-119		
Batch number: 11298621201B	Sample number(s): 6445463-6445471								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	99		85-115		
Batch number: 11300102201A	Sample number(s): 6445463-6445466								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	96		80-120		
Batch number: 11305243201A	Sample number(s): 6445463-6445471								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	95		80-120		
Batch number: 11306621203A	Sample number(s): 6445463-6445471								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	102		90-110		
Batch number: 11300039403A	Sample number(s): 6445463-6445471								
17a pH by 9045C					100		95-105		
Batch number: 11301162401B	Sample number(s): 6445463-6445471								
Moisture Content by 160.3					99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471 UNSPK: P443490								
Aniline	65	74	18-116	13	30				
Benzidine	0*	0*	35-141	0	30				
Benzoic acid	74	58	10-173	25	30				
Benzyl alcohol	90	94	67-115	5	30				
4-Bromophenyl-phenylether	92	96	67-129	4	30				
Carbazole	92	98	64-120	6	30				
4-Chloro-3-methylphenol	94	99	62-122	6	30				
4-Chloroaniline	55	70	13-107	24	30				
bis(2-Chloroethoxy)methane	93	98	75-104	6	30				
bis(2-Chloroethyl)ether	88	90	60-116	2	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
bis(2-Chloroisopropyl)ether	84	86	55-142	2	30				
2-Chloronaphthalene	71	74	50-141	4	30				
2-Chlorophenol	94	97	73-121	3	30				
4-Chlorophenyl-phenylether	94	97	80-109	3	30				
Dibenzofuran	91	96	71-112	5	30				
1,2-Dichlorobenzene	85	87	66-108	2	30				
1,3-Dichlorobenzene	85	86	63-109	1	30				
1,4-Dichlorobenzene	85	86	58-108	2	30				
3,3'-Dichlorobenzidine	39	55	28-109	33*	30				
2,4-Dichlorophenol	97	100	66-123	3	30				
2,4-Dimethylphenol	93	98	68-118	5	30				
3,5-Dimethylphenol	98	104	71-127	5	30				
4,6-Dinitro-2-methylphenol	80	46	11-126	53*	30				
2,4-Dinitrophenol	65	20	20-143	104*	30				
2,4-Dinitrotoluene	98	100	56-129	2	30				
2,6-Dinitrotoluene	97	101	69-123	4	30				
1,2-Diphenylhydrazine	94	97	71-129	3	30				
Hexachlorobenzene	91	96	77-114	5	30				
Hexachlorobutadiene	86	91	62-120	6	30				
Hexachlorocyclopentadiene	87	86	10-153	1	30				
Hexachloroethane	84	84	57-109	0	30				
Isophorone	89	94	73-102	5	30				
2-Methylphenol	95	97	75-111	2	30				
4-Methylphenol	93	95	59-123	1	30				
2-Nitroaniline	98	101	67-125	3	30				
3-Nitroaniline	93	100	59-122	7	30				
4-Nitroaniline	81	89	41-109	10	30				
Nitrobenzene	89	95	57-125	7	30				
2-Nitrophenol	90	91	56-127	2	30				
4-Nitrophenol	86	90	37-129	5	30				
N-Nitroso-di-n-propylamine	84	87	60-116	3	30				
N-Nitrosodiphenylamine	95	98	71-122	4	30				
Pentachlorophenol	96	87	28-127	9	30				
Phenol	96	100	58-126	4	30				
1,2,4-Trichlorobenzene	88	93	72-115	5	30				
2,4,5-Trichlorophenol	94	98	58-129	4	30				
2,4,6-Trichlorophenol	94	96	56-134	2	30				
Batch number: 11295SLC026 Sample number(s): 6445463-6445471 UNSPK: P443491									
Acenaphthene	92	89	63-105	3	30				
Acenaphthylene	88	85	67-114	3	30				
Anthracene	95	92	73-115	3	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	92	90	58-142	2	30				
Benzo(b)fluoranthene	91	88	54-163	3	30				
Benzo(g,h,i)perylene	102	98	33-141	4	30				
Benzo(k)fluoranthene	93	92	57-153	1	30				
Butylbenzylphthalate	100	96	57-173	5	30				
Di-n-butylphthalate	94	94	65-148	0	30				
Chrysene	98	97	67-123	1	30				
Dibenz(a,h)anthracene	104	101	22-133	2	30				
Diethylphthalate	91	88	70-136	4	30				
Dimethylphthalate	94	91	74-118	3	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	124	119	39-167	4	30				
Fluoranthene	95	94	51-149	1	30				
Fluorene	91	88	66-122	3	30				
Indeno(1,2,3-cd)pyrene	104	100	21-143	3	30				
1-Methylnaphthalene	86	82	72-123	5	30				
2-Methylnaphthalene	85	82	64-103	4	30				
Naphthalene	87	83	61-102	5	30				
N-Nitrosodimethylamine	96	89	48-113	8	30				
Di-n-octylphthalate	89	89	40-192	0	30				
Phenanthrene	91	88	62-122	3	30				
Pyrene	95	88	51-131	7	30				
Batch number: 112980018A	Sample number(s): 6445467 UNSPK: P439929								
6a Perchlorate EPA 6850	100	104	80-120	4	20				
Batch number: 112990025A	Sample number(s): 6445463-6445471 UNSPK: P446810								
PCB-1016	109	123	29-146	12	50				
PCB-1260	110	118	39-149	7	50				
Batch number: 112970037A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
Ethanol	84	91	48-130	8	20				
Isopropanol	90	94	12-149	5	20				
Methanol	89	100	43-138	11	20				
Batch number: 112980042A	Sample number(s): 6445463-6445466 UNSPK: P437195								
Diethylene glycol	47*	48*	59-109	3	20				
Ethylene glycol	75	75	63-107	1	20				
Propylene glycol	77	78	63-107	0	20				
Batch number: 112990013A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
m-Terphenyl	107	105	75-125	2	20				
o-Terphenyl	106	105	75-125	2	20				
p-Terphenyl	106	104	75-125	2	20				
Batch number: 113000011A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
EFH (C12-C14)	119	283*	49-123	59*	20				
EFH (C15-C20)	494*	190*	49-123	55*	20				
EFH (C21-C30)	1022	728 (2)	49-123	20	20				
	(2)								
EFH (C30 - C40)	292 (2)	353 (2)	49-123	5	20				
EFH (C8-C11)	90	90	49-123	0	20				
Batch number: 112971026003A	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Antimony	28*	28*	75-125	1	20	0.103 J	0.0806 J	25* (1)	20
Arsenic	82	57*	75-125	6	20	6.62	6.98	5	20
Beryllium	90	72*	75-125	10	20	0.824	0.814	1	20
Cadmium	105	96	75-125	9	20	0.0882 J	0.0745 J	17 (1)	20
Chromium	88	60*	75-125	9	20	25.6	25.3	1	20
Cobalt	101	97	75-125	4	20	7.66	7.86	3	20
Copper	95	89	75-125	3	20	11.4	11.8	4	20
Lead	101	50*	75-125	15	20	7.46	7.35	1	20
Nickel	92	85	75-125	3	20	15.3	15.6	2	20
Silver	104	102	75-125	2	20	0.0299 J	0.0293 J	2 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Thallium	92	79	75-125	8	20	0.319	0.280	13 (1)	20
Vanadium	80 (2)	51 (2)	75-125	5	20	49.7	50.1	1	20
Zinc	67 (2)	45 (2)	75-125	4	20	53.4	53.2	0	20
Batch number: 112971026003B Selenium	Sample number(s): 6445463-6445471 91 97	75-125	5	20	UNSPK: P446810 0.0790 J	BKG: P446810 0.0998 J	23* (1)	20	
Batch number: 112971026003C Molybdenum	Sample number(s): 6445463-6445471 94 92	75-125	3	20	UNSPK: P446810 0.533	BKG: P446810 0.502	6	20	
Batch number: 112971026003D Barium	Sample number(s): 6445463-6445471 43 (2) -80 (2)	75-125	11	20	UNSPK: P446810 109	BKG: P446810 113	3	20	
Batch number: 112975708006 Aluminum	Sample number(s): 6445463-6445471 1918 (2)	-1788 (2)	75-125	27*	20	UNSPK: P446810 27,400	BKG: P446810 28,100	2	20
Boron	96	92	84-115	2	20	9.74	9.76	0 (1)	20
Calcium	-52 (2)	77 (2)	75-125	4	20	12,800	11,100	14	20
Iron	2334 (2)	-2778 (2)	75-125	20	20	25,600	27,400	7	20
Lithium	103	91	82-114	8	20	26.0	27.0	4	20
Magnesium	254 (2)	-105 (2)	75-125	14	20	5,070	5,250	4	20
Manganese	42 (2)	52 (2)	75-125	2	20	282	320	13	20
Phosphorus	87	98	75-125	5	20	168	165	2	20
Potassium	151*	80	75-125	18	20	2,640	2,740	3	20
Sodium	100	93	75-125	6	20	75.4 J	75.9 J	1 (1)	20
Strontium	99	96	75-115	1	20	19.6	19.5	0	20
Tin	81	80	80-110	1	20	2.73 J	2.88 J	5 (1)	20
Titanium	218 (2)	155 (2)	75-125	5	20	1,070	1,110	4	20
Zirconium	96	88	81-110	6	20	5.00	6.41	25* (1)	20
Batch number: 112975711003 Mercury	Sample number(s): 6445463-6445471 95 102	65-135	9	20	UNSPK: P446810 0.0150 J	BKG: P446810 0.0204 J	30* (1)	20	
Batch number: 11298621201B 7a Perchlorate EPA 314.0	Sample number(s): 6445463-6445471 108	80-120			UNSPK: 6445463 9.0 U	BKG: 6445463 9.0 U	0 (1)	15	
Batch number: 11300102201A 16a Cyanide by 9012B	Sample number(s): 6445463-6445466 102	75-125			UNSPK: P443491 0.18 U	BKG: P443491 0.18 U	0 (1)	20	
Batch number: 11305243201A 3a Cr VI by EPA 7199	Sample number(s): 6445463-6445471 94	75-125			UNSPK: P446810 0.21 J	BKG: P446810 0.56 J	90* (1)	20	
Batch number: 11306621203A 11a Anions by 300.0 - Fluoride	Sample number(s): 6445463-6445471 73*	80-120			UNSPK: 6445463 1.1	BKG: 6445463 0.80 U	200* (1)	20	
11a Anions by 300.0 - Nitrate	104	80-120			2.3	2.1	9 (1)	20	
Batch number: 11300039403A 17a pH by 9045C	Sample number(s): 6445463-6445471				BKG: 6445463 6.58	6.60	0	3	
Batch number: 11301162401B Moisture Content by 160.3	Sample number(s): 6445463-6445471				BKG: 6445471 8.8	8.8	0	20	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11295SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	96	97	84	89	92	102
6445464	88	91	81	82	85	93
6445465	95	97	82	84	86	96
6445466	88	90	81	83	86	96
6445467	88	91	75	85	86	96
6445468	91	93	70	83	83	98
6445469	89	92	69	84	86	95
6445470	87	89	71	79	82	96
6445471	91	94	70	83	84	99
Blank	86	90	84	86	88	99
LCS	89	90	91	85	88	101
MS	92	94	86	86	87	96
MSD	95	98	89	91	92	101
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11295SLC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	90	55	69
6445464	96	79	68
6445465	92	78	72
6445466	86	77	71
6445467	88	79	88
6445468	82	72	82
6445469	85	77	86
6445470	79	72	82
6445471	87	60	85
Blank	93	82	81
LCS	98	81	86
MS	100	83	84
MSD	97	80	80
Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11299A16A
Trifluorotoluene-F

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

6445463 119
6445464 90
6445465 91
Blank 96
LCS 89
LCSD 93

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11300A20A
Trifluorotoluene-F

6445473 86
Blank 88
LCS 117
LCSD 115

Limits: 63-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112990025A
Tetrachloro-m-xylene Decachlorobiphenyl

6445463	110	121*
6445464	115	129*
6445465	117	131*
6445466	97	109
6445467	101	106
6445468	104	96
6445469	101	113
6445470	107	113
6445471	95	100
Blank	103	124*
LCS	136	163*
LCSD	101	113
MS	108	109
MSD	104	118

Limits: 53-139 45-120

Analysis Name: 18a Alcohols by 8015B
Batch number: 112970037A
Acetone

6445463 89
6445464 92
6445465 94
6445466 89
Blank 97
LCS 103
MS 94
MSD 95

Limits: 42-138

Analysis Name: 19a Glycols by 8015B

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

Batch number: 112980042A
Tetramethylene glycol

6445463	88
6445464	88
6445465	86
6445466	87
Blank	100
LCS	99
MS	88
MSD	87

Limits: 29-137

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112990013A
n-Triacontane-d62

6445463	86
6445464	78
6445465	75
6445466	93
Blank	76
LCS	76
MS	95
MSD	85

Limits: 19-152

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113000011A
Chlorobenzene Orthoterphenyl

6445463	84	87
6445464	89	91
6445465	85	89
6445466	90	92
Blank	83	87
LCS	80	90
MS	85	75
MSD	88	81

Limits: 37-125

47-145

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

13013 1272534 6445463-73

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 8010/8200/8247/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex. Chlorine EPA 7169	*PH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8850 (10%)	*TPH-GRO EPA 8015B \$	**TPH-LEPH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Th-NDMA EPA 1625C	**Etiopetals EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dioxins EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-023-SA7-SB-2.5	10.20.11	0915	SOIL	NONE	2-Encores										X												
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	1-SS Sieve			X	X																		
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X				
SL-060-SA7-SB-9.0	10.20.11	1100	SOIL	NONE	2-Encores									X													
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	1-SS Sieve			X	X																		
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X				
SL-069-SA7-SB-3.0	10.20.11	1520	SOIL	NONE	2-Encores									X													
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	1-SS Sieve			X	X																		
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X				
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	1-SS Sieve			X	X																		
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X			X	X			X	X	X	X				
SL-026-SA5DS-SB-4.0-5.0	10.20.11	1237	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-026-SA5DS-SB-9.0-10.0	10.20.11	1155	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-040-SA5DS-SB-4.0-5.0	10.20.11	1001	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-040-SA5DS-SB-9.0-10.0	10.20.11	0920	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-016-SA8S-SB-4.0-5.0	10.20.11	1508	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
EB-SA5DS-SB-102011	10.20.11	1400	WATER	NONE	1-1 L Amber												X										
TB-4042044-102011 NIKK	10.20.11	0800	WATER	NONE	2-40 mL Vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																			Laboratory:				
		10/20/2011 / 1630																					Lancaster Laboratories, Inc.				
Received by: (Signature)		Date/Time		Airbill No. (s)																							
				8767 9858 7618,7629																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2011

Group Number: 1272728

SDG: DE277

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-017-SA8S-SB-4.0-5.0 Soil	6446809
SL-018-SA8S-SB-4.0-5.0 Soil	6446810
SL-018-SA8S-SB-4.0-5.0MS Soil	6446811
SL-018-SA8S-SB-4.0-5.0MSD Soil	6446812
SL-018-SA8S-SB-4.0-5.0DUP Soil	6446813
SL-018-SA8S-SB-4.0-5.0RL MS Soil	6446814
SL-018-SA8S-SB-4.0-5.0RL LCS Soil	6446815
SL-018-SA8S-SB-7.5-8.5 Soil	6446816
DUP02-SA8S-QC-102111 Soil	6446817
SL-065-SA7-SB-2.0-3.0 Soil	6446818
SL-014-SA8S-SB-4.0-5.0 Soil	6446819
SL-014-SA8S-SB-7.0-8.0 Soil	6446820
SL-015-SA8S-SB-4.0-5.0 Soil	6446821
SL-015-SA8S-SB-9.0-10.0 Soil	6446822

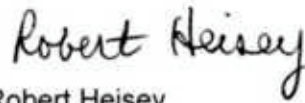
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.0 J	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.82 J	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	34	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.87 J	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	50	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,400	6.51	21.5	1
07914	Boron	7440-42-8	11.5	0.387	5.38	1
01650	Calcium	7440-70-2	5,480	2.69	21.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,700	14.0	108	5
01656	Lithium	7439-93-2	27.9	0.67	2.2	1
01657	Magnesium	7439-95-4	6,630	0.474	10.8	1
06958	Manganese	7439-96-5	299	0.0387	0.538	1
10145	Phosphorus	7723-14-0	399	0.377	10.8	1
01662	Potassium	7440-09-7	3,490	12.2	53.8	1
01667	Sodium	7440-23-5	94.3 J	6.40	108	1
07968	Strontium	7440-24-6	22.0	0.0269	0.538	1
06969	Tin	7440-31-5	2.80 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,200	0.0764	1.08	1
10146	Zirconium	7440-67-7	6.32	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.138 J	0.0789	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.70	0.0853	0.426	2
06126	Barium	7440-39-3	74.8	0.113	0.426	2
06127	Beryllium	7440-41-7	0.757	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.159	0.0469	0.107	2
06131	Chromium	7440-47-3	28.5	0.128	0.426	2
06132	Cobalt	7440-48-4	9.96	0.0213	0.107	2
06133	Copper	7440-50-8	15.0	0.0853	0.426	2
06135	Lead	7439-92-1	8.87	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.555	0.0533	0.107	2
06139	Nickel	7440-02-0	17.7	0.107	0.426	2
06141	Selenium	7782-49-2	0.233 J	0.0618	0.426	2
06142	Silver	7440-22-4	0.0315 J	0.0151	0.107	2
06145	Thallium	7440-28-0	0.291	0.0320	0.107	2
06148	Vanadium	7440-62-2	48.3	0.0234	0.107	2
06149	Zinc	7440-66-6	68.2	0.597	3.20	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0172 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.44 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.89	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 02:44	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 07:45	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:35	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:11	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:11	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:11	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:27	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 02:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 12:29	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7	U 6.7	20	1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.9	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.9	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20	1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.9	1
10138	Pyrene	129-00-0	0.74	U 0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.51	J 0.37	1.9	1
10225	PCB-1254	11097-69-1	1.9	J 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.80	J 0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,600	6.63	21.9	1
07914	Boron	7440-42-8	10.9	0.394	5.48	1
01650	Calcium	7440-70-2	14,300	2.74	21.9	1
01654	Iron	7439-89-6	28,600	14.3	110	5
01656	Lithium	7439-93-2	29.1	0.68	2.2	1
01657	Magnesium	7439-95-4	5,660	0.482	11.0	1
06958	Manganese	7439-96-5	315	0.0394	0.548	1
10145	Phosphorus	7723-14-0	187	0.383	11.0	1
01662	Potassium	7440-09-7	2,950	12.4	54.8	1
01667	Sodium	7440-23-5	84.3 J	6.52	110	1
07968	Strontium	7440-24-6	21.8	0.0274	0.548	1
06969	Tin	7440-31-5	3.05 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,190	0.0778	1.10	1
10146	Zirconium	7440-67-7	5.59	0.504	5.48	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.115 J	0.0827	0.223	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.40	0.0894	0.447	2
06126	Barium	7440-39-3	122	0.118	0.447	2
06127	Beryllium	7440-41-7	0.920	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.0985 J	0.0492	0.112	2
06131	Chromium	7440-47-3	28.6	0.134	0.447	2
06132	Cobalt	7440-48-4	8.56	0.0223	0.112	2
06133	Copper	7440-50-8	12.7	0.0894	0.447	2
06135	Lead	7439-92-1	8.34	0.0114	0.223	2
06138	Molybdenum	7439-98-7	0.596	0.0559	0.112	2
06139	Nickel	7440-02-0	17.1	0.112	0.447	2
06141	Selenium	7782-49-2	0.0883 J	0.0648	0.447	2
06142	Silver	7440-22-4	0.0334 J	0.0159	0.112	2
06145	Thallium	7440-28-0	0.357	0.0335	0.112	2
06148	Vanadium	7440-62-2	55.5	0.0246	0.112	2
06149	Zinc	7440-66-6	59.7	0.626	3.35	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0168 J	0.0078	0.111	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.91	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.87	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011	20:23	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011	06:05	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011	08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011	08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011	08:38	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011	10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011	17:00	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011	07:01	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011	19:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011	19:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011	19:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011	19:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011	19:19	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:28	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 21:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 12:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	19	190	1
04688	Acenaphthylene	208-96-8	1,900	19	190	1
04688	Aniline	62-53-3	1,400	190	560	1
04688	Anthracene	120-12-7	1,900	19	190	1
04688	Benziidine	92-87-5	2,500	J 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,700	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,900	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,900	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	19	190	1
04688	Benzoic acid	65-85-0	530	J 190	560	1
04688	Benzyl alcohol	100-51-6	1,800	190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	19	190	1
04688	Butylbenzylphthalate	85-68-7	1,800	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,800	19	190	1
04688	Carbazole	86-74-8	1,800	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	37	190	1
04688	4-Chloroaniline	106-47-8	1,200	74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	19	190	1
04688	2-Chloronaphthalene	91-58-7	1,600	19	190	1
04688	2-Chlorophenol	95-57-8	1,800	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	190	1
04688	Chrysene	218-01-9	1,700	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	19	190	1
04688	Dibenzofuran	132-64-9	1,800	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,600	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	900	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,900	19	190	1
04688	Diethylphthalate	84-66-2	1,800	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,800	37	190	1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	190	1
04688	Dimethylphthalate	131-11-3	1,800	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,200	190	560	1
04688	2,4-Dinitrophenol	51-28-5	1,500	370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,800	37	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	19	370	1
04688	Fluoranthene	206-44-0	1,900	19	190	1
04688	Fluorene	86-73-7	1,800	19	190	1
04688	Hexachlorobenzene	118-74-1	1,800	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,700	74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	3,300	190	560	1
04688	Hexachloroethane	67-72-1	1,500	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	19	190	1
04688	Isophorone	78-59-1	1,800	19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	19	190	1
04688	2-Methylnaphthalene	91-57-6	1,800	19	190	1
04688	2-Methylphenol	95-48-7	1,800	37	190	1
04688	4-Methylphenol	106-44-5	1,800	37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,700	19	190	1
04688	2-Nitroaniline	88-74-4	1,900	19	190	1
04688	3-Nitroaniline	99-09-2	1,800	37	190	1
04688	4-Nitroaniline	100-01-6	1,500	74	190	1
04688	Nitrobenzene	98-95-3	1,800	19	190	1
04688	2-Nitrophenol	88-75-5	1,700	19	190	1
04688	4-Nitrophenol	100-02-7	1,600	190	560	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	37	190	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,700	19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	2,000	19	190	1
04688	Pentachlorophenol	87-86-5	1,600	190	560	1
04688	Phenanthrene	85-01-8	1,800	19	190	1
04688	Phenol	108-95-2	1,900	19	190	1
04688	Pyrene	129-00-0	1,800	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.74	1.9	1
10138	Acenaphthylene	208-96-8	32	0.37	1.9	1
10138	Anthracene	120-12-7	34	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	34	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	34	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	35	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	36	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	36	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	39	6.7	20	1
10138	Chrysene	218-01-9	34	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	36	0.74	1.9	1
10138	Diethylphthalate	84-66-2	36	6.7	20	1
10138	Dimethylphthalate	131-11-3	36	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	49	6.7	20	1
10138	Fluoranthene	206-44-0	35	0.74	1.9	1
10138	Fluorene	86-73-7	35	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	35	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	31	0.74	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.74	1.9	1
10138	Naphthalene	91-20-3	31	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	32	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	54	6.7	20	1
10138	Phenanthrene	85-01-8	33	0.74	1.9	1
10138	Pyrene	129-00-0	34	0.74	1.9	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	20	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	22	0.37	1.9	1
10225	PCB-1254	11097-69-1	4.6	0.37	1.9	1
10225	PCB-1260	11096-82-5	21	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	34,800	6.63	21.9	1
07914	Boron	7440-42-8	220	0.394	5.48	1
01650	Calcium	7440-70-2	14,100	2.74	21.9	1
01654	Iron	7439-89-6	31,200	14.3	110	5
01656	Lithium	7439-93-2	142	0.68	2.2	1
01657	Magnesium	7439-95-4	6,220	0.482	11.0	1
06958	Manganese	7439-96-5	338	0.0394	0.548	1
10145	Phosphorus	7723-14-0	282	0.383	11.0	1
01662	Potassium	7440-09-7	4,610	12.4	54.8	1
01667	Sodium	7440-23-5	1,180	6.52	110	1
07968	Strontium	7440-24-6	131	0.0274	0.548	1
06969	Tin	7440-31-5	357	0.351	11.0	1
06970	Titanium	7440-32-6	1,430	0.0778	1.10	1
10146	Zirconium	7440-67-7	111	0.504	5.48	1
SW-846 6020						
06124	Antimony	7440-36-0	0.476	0.0803	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.19	0.0868	0.434	2
06126	Barium	7440-39-3	126	0.115	0.434	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals			mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	1.70	0.0174	0.108	2
06128	Cadmium	7440-43-9	1.23	0.0477	0.108	2
06131	Chromium	7440-47-3	38.1	0.130	0.434	2
06132	Cobalt	7440-48-4	63.1	0.0217	0.108	2
06133	Copper	7440-50-8	23.1	0.0868	0.434	2
06135	Lead	7439-92-1	11.6	0.0111	0.217	2
06138	Molybdenum	7439-98-7	10.8	0.0542	0.108	2
06139	Nickel	7440-02-0	27.1	0.108	0.434	2
06141	Selenium	7782-49-2	2.07	0.0629	0.434	2
06142	Silver	7440-22-4	11.3	0.0154	0.108	2
06145	Thallium	7440-28-0	0.755	0.0325	0.108	2
06148	Vanadium	7440-62-2	64.2	0.0239	0.108	2
06149	Zinc	7440-66-6	66.9	0.607	3.25	2
SW-846 6020			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.185	0.0074	0.106	1
SW-846 7471A			mg/kg	mg/kg	mg/kg	
Wet Chemistry			mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.0	0.91	1.1	1
EPA 314.0			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	587	10.1	33.5	1
SW-846 7199			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	42.5	1.1	5.6	5
Wet Chemistry			%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 20:49	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 06:38	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:57	Jessica L Miller	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:12	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:31	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	2	11313621201A	11/09/2011 15:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 13:02	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11306621203B	11/09/2011 06:05	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 6 of 6

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	18	180	1
04688	Acenaphthylene	208-96-8	1,900	18	180	1
04688	Aniline	62-53-3	1,300	180	550	1
04688	Anthracene	120-12-7	1,800	18	180	1
04688	Benziidine	92-87-5	2,500	J 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,800	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,800	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,800	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	18	180	1
04688	Benzoic acid	65-85-0	530	J 180	550	1
04688	Benzyl alcohol	100-51-6	1,800	180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	1,700	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,800	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,800	18	180	1
04688	Carbazole	86-74-8	1,800	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	37	180	1
04688	4-Chloroaniline	106-47-8	1,200	74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,700	18	180	1
04688	2-Chlorophenol	95-57-8	1,800	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	180	1
04688	Chrysene	218-01-9	1,700	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,700	18	180	1
04688	Dibenzofuran	132-64-9	1,700	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,600	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	900	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,800	18	180	1
04688	Diethylphthalate	84-66-2	1,800	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,800	37	180	1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	180	1
04688	Dimethylphthalate	131-11-3	1,800	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,300	180	550	1
04688	2,4-Dinitrophenol	51-28-5	1,500	370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,900	37	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	18	370	1
04688	Fluoranthene	206-44-0	1,900	18	180	1
04688	Fluorene	86-73-7	1,800	18	180	1
04688	Hexachlorobenzene	118-74-1	1,700	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,600	74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	3,100	180	550	1
04688	Hexachloroethane	67-72-1	1,500	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	18	180	1
04688	Isophorone	78-59-1	1,800	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,800	18	180	1
04688	2-Methylphenol	95-48-7	1,800	37	180	1
04688	4-Methylphenol	106-44-5	1,700	37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,700	18	180	1
04688	2-Nitroaniline	88-74-4	1,800	18	180	1
04688	3-Nitroaniline	99-09-2	1,800	37	180	1
04688	4-Nitroaniline	100-01-6	1,600	74	180	1
04688	Nitrobenzene	98-95-3	1,800	18	180	1
04688	2-Nitrophenol	88-75-5	1,700	18	180	1
04688	4-Nitrophenol	100-02-7	1,700	180	550	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	37	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	2,000	18	180	1
04688	Pentachlorophenol	87-86-5	1,500	180	550	1
04688	Phenanthrene	85-01-8	1,800	18	180	1
04688	Phenol	108-95-2	1,800	18	180	1
04688	Pyrene	129-00-0	1,700	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.73	1.8	1
10138	Acenaphthylene	208-96-8	34	0.37	1.8	1
10138	Anthracene	120-12-7	34	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	36	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	35	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	38	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	38	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	40	6.6	20	1
10138	Chrysene	218-01-9	35	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	36	0.73	1.8	1
10138	Diethylphthalate	84-66-2	37	6.6	20	1
10138	Dimethylphthalate	131-11-3	37	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	54	6.6	20	1
10138	Fluoranthene	206-44-0	36	0.73	1.8	1
10138	Fluorene	86-73-7	36	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	35	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	32	0.73	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	32	0.73	1.8	1
10138	Naphthalene	91-20-3	33	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	34	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	67	6.6	20	1
10138	Phenanthrene	85-01-8	34	0.73	1.8	1
10138	Pyrene	129-00-0	35	0.73	1.8	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	23	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	22	0.37	1.9	1
10225	PCB-1254	11097-69-1	6.2	0.37	1.9	1
10225	PCB-1260	11096-82-5	23	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	26,600	6.76	22.3	1
07914	Boron	7440-42-8	215	0.402	5.59	1
01650	Calcium	7440-70-2	14,600	2.79	22.3	1
01654	Iron	7439-89-6	25,500	2.92	22.3	1
01656	Lithium	7439-93-2	131	0.69	2.2	1
01657	Magnesium	7439-95-4	5,430	0.492	11.2	1
06958	Manganese	7439-96-5	344	0.0402	0.559	1
10145	Phosphorus	7723-14-0	296	0.391	11.2	1
01662	Potassium	7440-09-7	3,850	12.6	55.9	1
01667	Sodium	7440-23-5	1,120	6.65	112	1
07968	Strontium	7440-24-6	129	0.0279	0.559	1
06969	Tin	7440-31-5	359	0.358	11.2	1
06970	Titanium	7440-32-6	1,370	0.0793	1.12	1
10146	Zirconium	7440-67-7	104	0.514	5.59	1
SW-846 6020						
06124	Antimony	7440-36-0	0.470	0.0795	0.215	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.63	0.0859	0.430	2
06126	Barium	7440-39-3	113	0.114	0.430	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	1.54	0.0172	0.107	2
06128	Cadmium	7440-43-9	1.13	0.0473	0.107	2
06131	Chromium	7440-47-3	35.0	0.129	0.430	2
06132	Cobalt	7440-48-4	60.8	0.0215	0.107	2
06133	Copper	7440-50-8	22.3	0.0859	0.430	2
06135	Lead	7439-92-1	9.95	0.0110	0.215	2
06138	Molybdenum	7439-98-7	10.5	0.0537	0.107	2
06139	Nickel	7440-02-0	26.2	0.107	0.430	2
06141	Selenium	7782-49-2	2.17	0.0623	0.430	2
06142	Silver	7440-22-4	11.0	0.0153	0.107	2
06145	Thallium	7440-28-0	0.697	0.0322	0.107	2
06148	Vanadium	7440-62-2	61.0	0.0236	0.107	2
06149	Zinc	7440-66-6	64.5	0.602	3.22	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.203	0.0077	0.110	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 21:14	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 07:11	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:16	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:32	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,400	6.76	22.3	1
07914	Boron	7440-42-8	10.9	0.402	5.59	1
01650	Calcium	7440-70-2	12,400	2.79	22.3	1
01654	Iron	7439-89-6	30,600	14.6	112	5
01656	Lithium	7439-93-2	30.1	0.69	2.2	1
01657	Magnesium	7439-95-4	5,870	0.492	11.2	1
06958	Manganese	7439-96-5	357	0.0402	0.559	1
10145	Phosphorus	7723-14-0	184	0.391	11.2	1
01662	Potassium	7440-09-7	3,060	12.6	55.9	1
01667	Sodium	7440-23-5	84.8 J	6.65	112	1
07968	Strontium	7440-24-6	21.7	0.0279	0.559	1
06969	Tin	7440-31-5	3.22 J	0.358	11.2	1
06970	Titanium	7440-32-6	1,240	0.0793	1.12	1
10146	Zirconium	7440-67-7	7.16	0.514	5.59	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0900 J	0.0811	0.219	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.80	0.0876	0.438	2
06126	Barium	7440-39-3	126	0.116	0.438	2
06127	Beryllium	7440-41-7	0.909	0.0175	0.110	2
06128	Cadmium	7440-43-9	0.0833 J	0.0482	0.110	2
06131	Chromium	7440-47-3	28.2	0.131	0.438	2
06132	Cobalt	7440-48-4	8.78	0.0219	0.110	2
06133	Copper	7440-50-8	13.2	0.0876	0.438	2
06135	Lead	7439-92-1	8.21	0.0112	0.219	2
06138	Molybdenum	7439-98-7	0.561	0.0548	0.110	2
06139	Nickel	7440-02-0	17.5	0.110	0.438	2
06141	Selenium	7782-49-2	0.112 J	0.0635	0.438	2
06142	Silver	7440-22-4	0.0328 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.313	0.0329	0.110	2
06148	Vanadium	7440-62-2	55.9	0.0241	0.110	2
06149	Zinc	7440-66-6	59.4	0.613	3.29	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0228 J	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.88	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.63 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.91	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	10.7	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:08	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:29	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 21:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:25	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 13:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-018-SA8S-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446814
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	3.0	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	2.8	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-018-SA8S-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446815
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.7 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	2.0	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	5.5	0.36	1.8	1
10225	PCB-1260	11096-82-5	1.1 J	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,900	6.53	21.6	1
07914	Boron	7440-42-8	3.99 J	0.389	5.40	1
01650	Calcium	7440-70-2	8,290	2.70	21.6	1
01654	Iron	7439-89-6	17,400	2.82	21.6	1
01656	Lithium	7439-93-2	23.9	0.67	2.2	1
01657	Magnesium	7439-95-4	3,170	0.475	10.8	1
06958	Manganese	7439-96-5	179	0.0389	0.540	1
10145	Phosphorus	7723-14-0	358	0.378	10.8	1
01662	Potassium	7440-09-7	1,680	12.2	54.0	1
01667	Sodium	7440-23-5	73.6 J	6.43	108	1
07968	Strontium	7440-24-6	21.2	0.0270	0.540	1
06969	Tin	7440-31-5	2.87 J	0.346	10.8	1
06970	Titanium	7440-32-6	986	0.0767	1.08	1
10146	Zirconium	7440-67-7	3.02 J	0.497	5.40	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0783 U	0.0783	0.212	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.24	0.0847	0.423	2
06126	Barium	7440-39-3	77.2	0.112	0.423	2
06127	Beryllium	7440-41-7	0.519	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.0466 U	0.0466	0.106	2
06131	Chromium	7440-47-3	12.7	0.127	0.423	2
06132	Cobalt	7440-48-4	5.54	0.0212	0.106	2
06133	Copper	7440-50-8	6.42	0.0847	0.423	2
06135	Lead	7439-92-1	4.81	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.393	0.0529	0.106	2
06139	Nickel	7440-02-0	7.43	0.106	0.423	2
06141	Selenium	7782-49-2	0.0614 U	0.0614	0.423	2
06142	Silver	7440-22-4	0.0258 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.242	0.0318	0.106	2
06148	Vanadium	7440-62-2	31.5	0.0233	0.106	2
06149	Zinc	7440-66-6	48.7	0.593	3.18	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.33	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 21:39	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 08:19	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 11:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.

Submitted: 10/22/2011 09:30

14420 Albemarle Point Place

Reported: 11/18/2011 11:59

Suite 210

Chantilly VA 20151

E7303 SDG#: DE277-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:33	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:28	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 02:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:13	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	27,400	6.51	21.5	1
07914	Boron	7440-42-8	9.11	0.387	5.38	1
01650	Calcium	7440-70-2	26,100	2.69	21.5	1
01654	Iron	7439-89-6	27,000	2.81	21.5	1
01656	Lithium	7439-93-2	27.4	0.67	2.2	1
01657	Magnesium	7439-95-4	5,210	0.473	10.8	1
06958	Manganese	7439-96-5	363	0.0387	0.538	1
10145	Phosphorus	7723-14-0	219	0.376	10.8	1
01662	Potassium	7440-09-7	3,050	12.2	53.8	1
01667	Sodium	7440-23-5	83.1 J	6.40	108	1
07968	Strontium	7440-24-6	23.4	0.0269	0.538	1
06969	Tin	7440-31-5	2.70 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,090	0.0764	1.08	1
10146	Zirconium	7440-67-7	5.19 J	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.100 J	0.0820	0.221	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.72	0.0886	0.443	2
06126	Barium	7440-39-3	114	0.117	0.443	2
06127	Beryllium	7440-41-7	0.862	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.0919 J	0.0487	0.111	2
06131	Chromium	7440-47-3	26.8	0.133	0.443	2
06132	Cobalt	7440-48-4	7.19	0.0221	0.111	2
06133	Copper	7440-50-8	11.7	0.0886	0.443	2
06135	Lead	7439-92-1	7.48	0.0113	0.221	2
06138	Molybdenum	7439-98-7	0.550	0.0554	0.111	2
06139	Nickel	7440-02-0	15.5	0.111	0.443	2
06141	Selenium	7782-49-2	0.162 J	0.0642	0.443	2
06142	Silver	7440-22-4	0.0444 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.285	0.0332	0.111	2
06148	Vanadium	7440-62-2	51.7	0.0244	0.111	2
06149	Zinc	7440-66-6	52.8	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0271 J	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.25	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:04	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 08:52	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 11:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:26	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:34	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:39	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,000	6.24	20.6	1
07914	Boron	7440-42-8	4.54 J	0.371	5.16	1
01650	Calcium	7440-70-2	4,150	2.58	20.6	1
01654	Iron	7439-89-6	20,800	2.69	20.6	1
01656	Lithium	7439-93-2	25.6	0.64	2.1	1
01657	Magnesium	7439-95-4	4,780	0.454	10.3	1
06958	Manganese	7439-96-5	278	0.0371	0.516	1
10145	Phosphorus	7723-14-0	334	0.361	10.3	1
01662	Potassium	7440-09-7	2,510	11.7	51.6	1
01667	Sodium	7440-23-5	82.4 J	6.14	103	1
07968	Strontium	7440-24-6	14.7	0.0258	0.516	1
06969	Tin	7440-31-5	2.70 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,040	0.0732	1.03	1
10146	Zirconium	7440-67-7	2.99 J	0.474	5.16	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0734 U	0.0734	0.198	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.16	0.0794	0.397	2
06126	Barium	7440-39-3	68.1	0.105	0.397	2
06127	Beryllium	7440-41-7	0.505	0.0159	0.0992	2
06128	Cadmium	7440-43-9	0.0859 J	0.0437	0.0992	2
06131	Chromium	7440-47-3	15.6	0.119	0.397	2
06132	Cobalt	7440-48-4	5.17	0.0198	0.0992	2
06133	Copper	7440-50-8	7.95	0.0794	0.397	2
06135	Lead	7439-92-1	4.72	0.0101	0.198	2
06138	Molybdenum	7439-98-7	0.357	0.0496	0.0992	2
06139	Nickel	7440-02-0	9.90	0.0992	0.397	2
06141	Selenium	7782-49-2	0.0800 J	0.0575	0.397	2
06142	Silver	7440-22-4	0.0177 J	0.0141	0.0992	2
06145	Thallium	7440-28-0	0.258	0.0298	0.0992	2
06148	Vanadium	7440-62-2	31.9	0.0218	0.0992	2
06149	Zinc	7440-66-6	53.9	0.556	2.98	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.84	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	ug/kg	ug/kg	1
				9.4	31.3	
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	mg/kg	mg/kg	1
				0.21	1.0	
SW-846 9045C modified						
			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.01	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.0	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:30	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 09:25	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:05	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:35	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:51	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:32	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,400	6.38	21.1	1
07914	Boron	7440-42-8	11.5	0.380	5.28	1
01650	Calcium	7440-70-2	60,400	13.2	106	5
01654	Iron	7439-89-6	25,500	2.75	21.1	1
01656	Lithium	7439-93-2	24.6	0.65	2.1	1
01657	Magnesium	7439-95-4	5,750	0.464	10.6	1
06958	Manganese	7439-96-5	366	0.0380	0.528	1
10145	Phosphorus	7723-14-0	490	0.369	10.6	1
01662	Potassium	7440-09-7	2,980	11.9	52.8	1
01667	Sodium	7440-23-5	88.7 J	6.28	106	1
07968	Strontium	7440-24-6	62.5	0.0264	0.528	1
06969	Tin	7440-31-5	2.50 J	0.338	10.6	1
06970	Titanium	7440-32-6	964	0.0749	1.06	1
10146	Zirconium	7440-67-7	3.69 J	0.485	5.28	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0773 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.54	0.0828	0.414	2
06126	Barium	7440-39-3	87.1	0.110	0.414	2
06127	Beryllium	7440-41-7	0.676	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.203	0.0455	0.104	2
06131	Chromium	7440-47-3	24.8	0.124	0.414	2
06132	Cobalt	7440-48-4	7.79	0.0207	0.104	2
06133	Copper	7440-50-8	13.3	0.0828	0.414	2
06135	Lead	7439-92-1	7.86	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.405	0.0518	0.104	2
06139	Nickel	7440-02-0	14.3	0.104	0.414	2
06141	Selenium	7782-49-2	0.245 J	0.0600	0.414	2
06142	Silver	7440-22-4	0.0205 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.288	0.0311	0.104	2
06148	Vanadium	7440-62-2	45.1	0.0228	0.104	2
06149	Zinc	7440-66-6	60.1	0.580	3.11	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.86	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	mg/kg 0.24 J	mg/kg 0.22	mg/kg 1.1	1
SW-846 9045C modified Std. Units						
00394	17a pH by 9045C	n.a.	7.96	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified %						
11624	Moisture Content by 160.3	n.a.	7.1	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:56	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 09:58	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:24	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:47	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/31/2011 06:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:37	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:03	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:53	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 15:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72	U 0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72	U 0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72	U 0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72	U 0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72	U 0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	U 0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5	U 6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5	U 6.5	20	1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72	U 0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5	U 6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5	U 6.5	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	30	U 6.5	20	1
10138	Fluoranthene	206-44-0	0.72	U 0.72	1.8	1
10138	Fluorene	86-73-7	0.72	U 0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72	U 0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72	U 0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72	U 0.72	1.8	1
10138	Naphthalene	91-20-3	0.72	U 0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72	U 0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	44	U 6.5	20	1
10138	Phenanthrene	85-01-8	0.72	U 0.72	1.8	1
10138	Pyrene	129-00-0	0.72	U 0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36	U 0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36	U 0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36	U 0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36	U 0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36	U 0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36	U 0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36	U 0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36	U 0.36	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,000	6.53	21.6	1
07914	Boron	7440-42-8	11.8	0.389	5.40	1
01650	Calcium	7440-70-2	110,000	13.5	108	5
01654	Iron	7439-89-6	23,500	2.82	21.6	1
01656	Lithium	7439-93-2	23.6	0.67	2.2	1
01657	Magnesium	7439-95-4	5,890	0.475	10.8	1
06958	Manganese	7439-96-5	398	0.0389	0.540	1
10145	Phosphorus	7723-14-0	481	0.378	10.8	1
01662	Potassium	7440-09-7	3,260	12.2	54.0	1
01667	Sodium	7440-23-5	122	6.42	108	1
07968	Strontium	7440-24-6	107	0.0270	0.540	1
06969	Tin	7440-31-5	2.40 J	0.346	10.8	1
06970	Titanium	7440-32-6	963	0.0767	1.08	1
10146	Zirconium	7440-67-7	4.20 J	0.497	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.113 J	0.0807	0.218	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.73	0.0872	0.436	2
06126	Barium	7440-39-3	92.4	0.116	0.436	2
06127	Beryllium	7440-41-7	0.659	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.233	0.0480	0.109	2
06131	Chromium	7440-47-3	26.1	0.131	0.436	2
06132	Cobalt	7440-48-4	7.85	0.0218	0.109	2
06133	Copper	7440-50-8	14.5	0.0872	0.436	2
06135	Lead	7439-92-1	8.44	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.364	0.0545	0.109	2
06139	Nickel	7440-02-0	15.7	0.109	0.436	2
06141	Selenium	7782-49-2	0.206 J	0.0632	0.436	2
06142	Silver	7440-22-4	0.0180 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.281	0.0327	0.109	2
06148	Vanadium	7440-62-2	45.8	0.0240	0.109	2
06149	Zinc	7440-66-6	58.6	0.611	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0121 J	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1 J	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.22	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	9.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 23:21	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 10:31	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:50	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:40	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:14	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:14	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	9.1 J	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.59 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,300	6.24	20.6	1
07914	Boron	7440-42-8	12.8	0.371	5.15	1
01650	Calcium	7440-70-2	72,800	12.9	103	5
01654	Iron	7439-89-6	23,200	2.69	20.6	1
01656	Lithium	7439-93-2	23.2	0.64	2.1	1
01657	Magnesium	7439-95-4	5,900	0.454	10.3	1
06958	Manganese	7439-96-5	433	0.0371	0.515	1
10145	Phosphorus	7723-14-0	512	0.361	10.3	1
01662	Potassium	7440-09-7	3,310	11.6	51.5	1
01667	Sodium	7440-23-5	92.9 J	6.13	103	1
07968	Strontium	7440-24-6	72.6	0.0258	0.515	1
06969	Tin	7440-31-5	2.25 J	0.330	10.3	1
06970	Titanium	7440-32-6	893	0.0732	1.03	1
10146	Zirconium	7440-67-7	3.57 J	0.474	5.15	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0770 U	0.0770	0.208	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.76	0.0833	0.416	2
06126	Barium	7440-39-3	95.7	0.110	0.416	2
06127	Beryllium	7440-41-7	0.619	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.239	0.0458	0.104	2
06131	Chromium	7440-47-3	26.2	0.125	0.416	2
06132	Cobalt	7440-48-4	7.94	0.0208	0.104	2
06133	Copper	7440-50-8	13.2	0.0833	0.416	2
06135	Lead	7439-92-1	7.59	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.385	0.0520	0.104	2
06139	Nickel	7440-02-0	15.2	0.104	0.416	2
06141	Selenium	7782-49-2	0.224 J	0.0604	0.416	2
06142	Silver	7440-22-4	0.0154 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.314	0.0312	0.104	2
06148	Vanadium	7440-62-2	45.2	0.0229	0.104	2
06149	Zinc	7440-66-6	62.7	0.583	3.12	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0079 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.87	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified Std. Units						
00394	17a pH by 9045C	n.a.	7.95	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 23:46	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 11:04	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 13:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:54	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/31/2011 06:49	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:41	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:35	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	6.78	22.4	1
07914	Boron	7440-42-8	12.9	0.404	5.61	1
01650	Calcium	7440-70-2	92,700	14.0	112	5
01654	Iron	7439-89-6	25,200	2.93	22.4	1
01656	Lithium	7439-93-2	24.4	0.70	2.2	1
01657	Magnesium	7439-95-4	6,540	0.493	11.2	1
06958	Manganese	7439-96-5	375	0.0404	0.561	1
10145	Phosphorus	7723-14-0	517	0.392	11.2	1
01662	Potassium	7440-09-7	3,020	12.7	56.1	1
01667	Sodium	7440-23-5	116	6.67	112	1
07968	Strontium	7440-24-6	97.7	0.0280	0.561	1
06969	Tin	7440-31-5	2.59 J	0.359	11.2	1
06970	Titanium	7440-32-6	881	0.0796	1.12	1
10146	Zirconium	7440-67-7	4.87 J	0.516	5.61	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.104 J	0.0813	0.220	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.29	0.0879	0.440	2
06126	Barium	7440-39-3	91.4	0.117	0.440	2
06127	Beryllium	7440-41-7	0.751	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.255	0.0484	0.110	2
06131	Chromium	7440-47-3	29.6	0.132	0.440	2
06132	Cobalt	7440-48-4	8.51	0.0220	0.110	2
06133	Copper	7440-50-8	15.0	0.0879	0.440	2
06135	Lead	7439-92-1	9.03	0.0112	0.220	2
06138	Molybdenum	7439-98-7	0.381	0.0550	0.110	2
06139	Nickel	7440-02-0	16.2	0.110	0.440	2
06141	Selenium	7782-49-2	0.436 J	0.0637	0.440	2
06142	Silver	7440-22-4	0.0213 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.284	0.0330	0.110	2
06148	Vanadium	7440-62-2	51.1	0.0242	0.110	2
06149	Zinc	7440-66-6	59.8	0.615	3.30	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.26 J	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.90	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/28/2011 00:11	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 11:37	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 13:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:58	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:42	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:38	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:56	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:53	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11297SLF026	Sample number(s): 6446809-6446812, 6446816-6446822								
Acenaphthene	17	U	17.	170	ug/kg	99	76-111		
Acenaphthylene	17	U	17.	170	ug/kg	106	75-122		
Aniline	170		170.	500	ug/kg	68	20-115		
	U								
Anthracene	17	U	17.	170	ug/kg	101	76-112		
Benzidine	1,200		1,200.	3,300	ug/kg	39	15-121		
	U								
Benzo(a)anthracene	17	U	17.	170	ug/kg	97	73-112		
Benzo(a)pyrene	17	U	17.	170	ug/kg	103	65-124		
Benzo(b)fluoranthene	17	U	17.	170	ug/kg	91	61-127		
Benzo(g,h,i)perylene	17	U	17.	170	ug/kg	106	60-125		
Benzo(k)fluoranthene	17	U	17.	170	ug/kg	105	67-125		
Benzoic acid	170		170.	500	ug/kg	86	62-113		
	U								
Benzyl alcohol	170		170.	500	ug/kg	97	68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170	ug/kg	98	73-114		
Butylbenzylphthalate	17	U	17.	170	ug/kg	99	75-115		
Di-n-butylphthalate	17	U	17.	170	ug/kg	100	79-112		
Carbazole	17	U	17.	170	ug/kg	99	77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	99	74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	51	10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	99	70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	94	70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	93	62-115		
2-Chloronaphthalene	17	U	17.	170	ug/kg	76	49-128		
2-Chlorophenol	17	U	17.	170	ug/kg	100	72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	98	74-115		
Chrysene	17	U	17.	170	ug/kg	95	76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	105	61-126		
Dibenzofuran	17	U	17.	170	ug/kg	96	74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	91	74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	89	70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	89	74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	37	10-116		
	U								
2,4-Dichlorophenol	17	U	17.	170	ug/kg	102	75-111		
Diethylphthalate	17	U	17.	170	ug/kg	99	76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	99	72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	103	83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	102	77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	79	46-120		
	U								
2,4-Dinitrophenol	330		330.	1,000	ug/kg	75	18-133		
	U								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	103		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	105		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	100		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	97		75-117		
Fluoranthene	17 U	17.	170	ug/kg	102		78-116		
Fluorene	17 U	17.	170	ug/kg	102		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	98		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	94		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	95		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	87		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	105		64-119		
Isophorone	17 U	17.	170	ug/kg	99		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	95		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	99		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	101		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
Naphthalene	17 U	17.	170	ug/kg	96		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	103		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	94		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	78		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	99		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	98		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	91		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	92		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	85		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	107		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	93		51-117		
Phenanthrene	17 U	17.	170	ug/kg	98		77-113		
Phenol	17 U	17.	170	ug/kg	103		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	97		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	100		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	100		78-111		
Batch number: 11299SLF026	Sample number(s): 6446809-6446812, 6446816-6446822								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	91		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	94		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	97		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	95		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	98		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	95		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	103		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	105		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	95		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	101		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	101		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	111		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	97		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	98		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	88		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	87		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	100		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		

Batch number: 112990025A	Sample number(s): 6446809-6446812, 6446814-6446822								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	85	61	36-106	32*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	117		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	153*		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 112971026003A	Sample number(s): 6446809-6446813, 6446816-6446822								
Antimony	0.0705 U	0.0705	0.190	mg/kg			40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	105		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	104		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	102		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	112		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	107		81-110		
Lead	0.0121 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	101		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	103		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	100		82-112		
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.533 U	0.533	2.86	mg/kg	99		82-110		

Batch number: 112971026003B	Sample number(s): 6446809-6446813, 6446816-6446822								
Selenium	0.0552 U	0.0552	0.381	mg/kg	101		79-110		

Batch number: 112971026003C	Sample number(s): 6446809-6446813, 6446816-6446822								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	101		80-110		

Batch number: 112971026003D	Sample number(s): 6446809-6446813, 6446816-6446822								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		

Batch number: 112975708006	Sample number(s): 6446809-6446813, 6446816-6446822								
Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		
Boron	0.447 J	0.360	5.00	mg/kg	102		83-110		
Calcium	17.2 J	2.50	20.0	mg/kg	95		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	2.05 J	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0480 J	0.0360	0.500	mg/kg	101		85-116		
Phosphorus	1.14 J	0.350	10.0	mg/kg	103		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	103		76-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Strontium	0.0770 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.18 J	0.320	10.0	mg/kg	94		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	91		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	101		80-120		
Batch number: 112975711003	Sample number(s): 6446809-6446813, 6446816-6446822								
Mercury	0.0070 U	0.0070	0.0989	mg/kg	111		83-119		
Batch number: 11298621202A	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	106		85-115		
Batch number: 11305243201A	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	95		80-120		
Batch number: 11306621203B	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
Batch number: 11313621201A	Sample number(s): 6446811								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	106		90-110		
Batch number: 11300039403B	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822								
17a pH by 9045C					100		95-105		
Batch number: 11305162401A	Sample number(s): 6446809-6446814, 6446816-6446822								
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11297SLF026	Sample number(s): 6446809-6446812, 6446816-6446822 UNSPK: 6446810								
Acenaphthene	97	95	75-115	2	30				
Acenaphthylene	104	104	81-110	0	30				
Aniline	75	70	18-116	8	30				
Anthracene	100	97	75-115	4	30				
Benzidine	27*	27*	35-141	2	30				
Benzo(a)anthracene	93	95	65-122	1	30				
Benzo(a)pyrene	102	99	57-126	3	30				
Benzo(b)fluoranthene	101	98	59-125	4	30				
Benzo(g,h,i)perylene	96	95	59-127	1	30				
Benzo(k)fluoranthene	104	103	56-132	2	30				
Benzoic acid	28	29	10-173	0	30				
Benzyl alcohol	96	95	67-115	1	30				
4-Bromophenyl-phenylether	96	91	67-129	6	30				
Butylbenzylphthalate	96	98	73-134	1	30				
Di-n-butylphthalate	98	97	67-123	2	30				
Carbazole	96	96	64-120	1	30				
4-Chloro-3-methylphenol	99	99	62-122	0	30				
4-Chloroaniline	66	66	13-107	1	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
bis(2-Chloroethoxy)methane	98	98	75-104	1	30				
bis(2-Chloroethyl)ether	91	89	60-116	3	30				
bis(2-Chloroisopropyl)ether	89	86	55-142	4	30				
2-Chloronaphthalene	84	91	50-141	8	30				
2-Chlorophenol	98	96	73-121	3	30				
4-Chlorophenyl-phenylether	97	95	80-109	2	30				
Chrysene	90	92	62-128	1	30				
Dibenz(a,h)anthracene	96	94	65-125	2	30				
Dibenzofuran	95	95	71-112	0	30				
1,2-Dichlorobenzene	85	85	66-108	1	30				
1,3-Dichlorobenzene	81	81	63-109	0	30				
1,4-Dichlorobenzene	83	83	58-108	0	30				
3,3'-Dichlorobenzidine	48	49	28-109	1	30				
2,4-Dichlorophenol	101	98	66-123	3	30				
Diethylphthalate	96	97	66-118	0	30				
2,4-Dimethylphenol	99	96	68-118	4	30				
3,5-Dimethylphenol	105	103	71-127	3	30				
Dimethylphthalate	98	98	64-118	1	30				
4,6-Dinitro-2-methylphenol	67	69	11-126	2	30				
2,4-Dinitrophenol	40	40	20-143	0	30				
2,4-Dinitrotoluene	97	101	56-129	4	30				
2,6-Dinitrotoluene	101	102	69-123	1	30				
1,2-Diphenylhydrazine	100	95	71-129	6	30				
bis(2-Ethylhexyl)phthalate	93	95	63-122	1	30				
Fluoranthene	101	103	73-112	2	30				
Fluorene	97	98	63-121	1	30				
Hexachlorobenzene	96	93	77-114	4	30				
Hexachlorobutadiene	91	88	62-120	4	30				
Hexachlorocyclopentadiene	90	85	10-153	6	30				
Hexachloroethane	80	80	57-109	0	30				
Indeno(1,2,3-cd)pyrene	97	95	61-126	2	30				
Isophorone	97	96	73-102	1	30				
1-Methylnaphthalene	93	92	64-122	1	30				
2-Methylnaphthalene	97	96	76-114	1	30				
2-Methylphenol	99	96	75-111	3	30				
4-Methylphenol	97	94	59-123	4	30				
Naphthalene	93	92	72-116	2	30				
2-Nitroaniline	100	100	67-125	1	30				
3-Nitroaniline	97	98	59-122	1	30				
4-Nitroaniline	81	85	41-109	5	30				
Nitrobenzene	95	95	57-125	1	30				
2-Nitrophenol	93	93	56-127	0	30				
4-Nitrophenol	88	94	37-129	6	30				
N-Nitroso-di-n-propylamine	90	87	60-116	4	30				
N-Nitrosodimethylamine	86	87	47-116	1	30				
N-Nitrosodiphenylamine	99	95	71-122	5	30				
Di-n-octylphthalate	108	106	56-126	2	30				
Pentachlorophenol	84	80	28-127	6	30				
Phenanthrene	97	95	65-125	3	30				
Phenol	102	99	58-126	4	30				
Pyrene	96	94	74-126	3	30				
1,2,4-Trichlorobenzene	92	91	72-115	1	30				
2,4,5-Trichlorophenol	95	93	58-129	3	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4,6-Trichlorophenol	97	96	56-134	2	30				
Batch number: 11299SLF026	Sample number(s): 6446809-6446812, 6446816-6446822 UNSPK: 6446810								
Acenaphthene	87	94	63-105	6	30				
Acenaphthylene	85	92	67-114	6	30				
Anthracene	90	94	73-115	3	30				
Benzo(a)anthracene	92	98	59-128	4	30				
Benzo(a)pyrene	91	96	58-142	3	30				
Benzo(b)fluoranthene	93	99	54-163	5	30				
Benzo(g,h,i)perylene	91	93	33-141	1	30				
Benzo(k)fluoranthene	98	103	57-153	4	30				
Butylbenzylphthalate	97	105	57-173	6	30				
Di-n-butylphthalate	105	109	65-148	2	30				
Chrysene	91	96	67-123	3	30				
Dibenz(a,h)anthracene	95	98	22-133	1	30				
Diethylphthalate	98	101	70-136	2	30				
Dimethylphthalate	97	101	74-118	3	30				
Bis(2-Ethylhexyl)phthalate	132	148	39-167	9	30				
Fluoranthene	95	99	51-149	3	30				
Fluorene	95	99	66-122	2	30				
Indeno(1,2,3-cd)pyrene	94	97	21-143	1	30				
1-Methylnaphthalene	83	88	72-123	4	30				
2-Methylnaphthalene	82	87	64-103	5	30				
Naphthalene	84	90	61-102	5	30				
N-Nitrosodimethylamine	86	93	48-113	6	30				
Di-n-octylphthalate	145	182	40-192	21	30				
Phenanthrene	88	93	62-122	4	30				
Pyrene	92	97	51-131	4	30				
Batch number: 112990025A	Sample number(s): 6446809-6446812, 6446814-6446822 UNSPK: 6446810								
PCB-1016	109	123	29-146	12	50				
PCB-1260	110	118	39-149	7	50				
Batch number: 112971026003A	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Antimony	28*	28*	75-125	1	20	0.103 J	0.0806 J	25* (1)	20
Arsenic	82	57*	75-125	6	20	6.62	6.98	5	20
Beryllium	90	72*	75-125	10	20	0.824	0.814	1	20
Cadmium	105	96	75-125	9	20	0.0882 J	0.0745 J	17 (1)	20
Chromium	88	60*	75-125	9	20	25.6	25.3	1	20
Cobalt	101	97	75-125	4	20	7.66	7.86	3	20
Copper	95	89	75-125	3	20	11.4	11.8	4	20
Lead	101	50*	75-125	15	20	7.46	7.35	1	20
Nickel	92	85	75-125	3	20	15.3	15.6	2	20
Silver	104	102	75-125	2	20	0.0299 J	0.0293 J	2 (1)	20
Thallium	92	79	75-125	8	20	0.319	0.280	13 (1)	20
Vanadium	80 (2)	51 (2)	75-125	5	20	49.7	50.1	1	20
Zinc	67 (2)	45 (2)	75-125	4	20	53.4	53.2	0	20
Batch number: 112971026003B	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Selenium	91	97	75-125	5	20	0.0790 J	0.0998 J	23* (1)	20
Batch number: 112971026003C	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Molybdenum	94	92	75-125	3	20	0.533	0.502	6	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 112971026003D Barium	Sample number(s): 6446809-6446813, 6446816-6446822 43 (2)	-80 (2)	75-125	11	20	109	UNSPK: 6446810 113	BKG: 6446810 3	20
Batch number: 112975708006 Aluminum	Sample number(s): 6446809-6446813, 6446816-6446822 1918 (2)	-1788 (2)	75-125	27*	20	27,400	UNSPK: 6446810 28,100	BKG: 6446810 2	20
Boron	96	92	84-115	2	20	9.74	9.76	0 (1)	20
Calcium	-52 (2)	77 (2)	75-125	4	20	12,800	11,100	14	20
Iron	2334 (2)	-2778 (2)	75-125	20	20	25,600	27,400	7	20
Lithium	103	91	82-114	8	20	26.0	27.0	4	20
Magnesium	254 (2)	-105 (2)	75-125	14	20	5,070	5,250	4	20
Manganese	42 (2)	52 (2)	75-125	2	20	282	320	13	20
Phosphorus	87	98	75-125	5	20	168	165	2	20
Potassium	151*	80	75-125	18	20	2,640	2,740	3	20
Sodium	100	93	75-125	6	20	75.4 J	75.9 J	1 (1)	20
Strontium	99	96	75-115	1	20	19.6	19.5	0	20
Tin	81	80	80-110	1	20	2.73 J	2.88 J	5 (1)	20
Titanium	218 (2)	155 (2)	75-125	5	20	1,070	1,110	4	20
Zirconium	96	88	81-110	6	20	5.00	6.41	25* (1)	20
Batch number: 112975711003 Mercury	Sample number(s): 6446809-6446813, 6446816-6446822 95	102	65-135	9	20	0.0150 J	0.0204 J	30* (1)	20
Batch number: 11298621202A 7a Perchlorate EPA 314.0	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822 6446810 107		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11305243201A 3a Cr VI by EPA 7199	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822 6446810 94		75-125			0.21 J	0.56 J	90* (1)	20
Batch number: 11306621203B 11a Anions by 300.0 - Fluoride	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822 6446810 76*		80-120			1.3	1.3	0 (1)	20
Batch number: 11313621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6446811 88		80-120			0.80 U	1.3	200* (1)	20
Batch number: 11300039403B 17a pH by 9045C	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822 7.87					7.91		1	3
Batch number: 11305162401A 28a Moisture Content by 160.3	Sample number(s): 6446809-6446814, 6446816-6446822 10.5					10.7		1	20
Moisture Content by 160.3	10.5					10.7		1	20
Moisture Content by 160.3	10.5					10.7		1	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11297SLF026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6446809	94	97	80	89	92	98
6446810	89	93	82	88	88	98
6446811	94	97	83	91	91	96
6446812	94	97	87	91	91	97
6446816	91	95	85	89	90	98
6446817	78	80	71	74	75	84
6446818	90	94	80	86	88	96
6446819	91	94	81	89	91	94
6446820	90	92	81	84	86	95
6446821	93	95	84	86	88	94
6446822	92	94	85	88	89	96
Blank	92	97	83	92	93	103
LCS	95	99	88	92	93	99
MS	94	97	83	91	91	96
MSD	94	97	87	91	91	97
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11299SLF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6446809	91	87	94
6446810	84	80	87
6446811	88	84	89
6446812	94	87	91
6446816	91	86	95
6446817	85	84	90
6446818	91	86	91
6446819	91	87	91
6446820	92	87	90
6446821	91	88	94
6446822	88	84	88
Blank	97	95	102
LCS	92	87	90
MS	88	84	89
MSD	94	87	91
Limits:	67-129	63-129	51-141

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112990025A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6446809	106	111
6446810	112	124*
6446811	108	109
6446812	104	118
6446814	120	141*
6446815	98	113

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Surrogate Quality Control

6446816	108	124*
6446817	217*	247*
6446818	109	120
6446819	96	117
6446820	102	133*
6446821	99	113
6446822	116	130*
Blank	103	124*
LCS	136	163*
LCSD	101	113
MS	108	109
MSD	104	118

Limits: 53-139 45-120

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

acc# 13013 Cp# 1272728

Sample# 6446809-24

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60100/60200/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EPI EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
		SL-017-SA8S-SB-4.0-5.0	10.21.11	1113	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-018-SA8S-SB-4.0-5.0MS	10.21.11	1023	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-018-SA8S-SB-7.5-8.5	10.21.11	0930	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		DUP02-SA8S-QC-102111	10.21.11	1015	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	1-SS Sleeve			X	X																
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X												
		SL-014-SA8S-SB-4.0-5.0	10.21.11	1431	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-014-SA8S-SB-7.0-8.0	10.21.11	1422	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-015-SA8S-SB-4.0-5.0	10.21.11	1523	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-015-SA8S-SB-9.0-10.0	10.21.11	1519	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		EB-SA8S-SB-102111	10.21.11	1430	SOIL	NONE	1-1 L Amber			X	X	X	X	X	X												
		TB-1012111	10.21.11	0800	WATER	NONE	2-40 mL Vials									X				X							
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory:											
		10/20/2011 / 1630		10/22/11 0930												Lancaster Laboratories, Inc.											
Received by: (Signature)		Date/Time		Airbill No.(s)																							
				8767 9858 7592,7630																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 08, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2011

Group Number: 1272729

SDG: DX152

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-017-SA8S-SB-4.0-5.0 Soil	6446825
SL-018-SA8S-SB-4.0-5.0 Soil	6446826
SL-018-SA8S-SB-4.0-5.0MS Soil	6446827
SL-018-SA8S-SB-4.0-5.0MSD Soil	6446828
SL-018-SA8S-SB-7.5-8.5 Soil	6446829
DUP02-SA8S-QC-102111 Soil	6446830
SL-065-SA7-SB-2.0-3.0 Soil	6446831
SL-014-SA8S-SB-4.0-5.0 Soil	6446832
SL-014-SA8S-SB-7.0-8.0 Soil	6446833
SL-015-SA8S-SB-4.0-5.0 Soil	6446834
SL-015-SA8S-SB-9.0-10.0 Soil	6446835

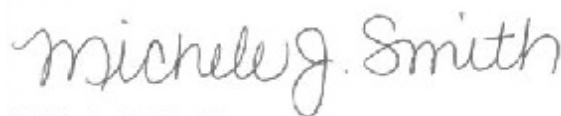
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0210 U	0.0210	1.06	1
11031	12378-PeCDD	40321-76-4	0.0221 U	0.0221	5.31	1
11031	123478-HxCDD	39227-28-6	0.0181 U	0.0181	5.31	1
11031	123678-HxCDD	57653-85-7	0.0497 JBQ	0.0184	5.31	1
11031	123789-HxCDD	19408-74-3	0.0529 JBQ	0.0183	5.31	1
11031	1234678-HpCDD	35822-46-9	0.257 JB	0.0249	5.31	1
11031	OCDD	3268-87-9	0.605 JB	0.0304	10.6	1
11031	2378-TCDF	51207-31-9	0.0192 U	0.0192	1.06	1
11031	12378-PeCDF	57117-41-6	0.0279 JB	0.0141	5.31	1
11031	23478-PeCDF	57117-31-4	0.0470 JB	0.0144	5.31	1
11031	123478-HxCDF	70648-26-9	0.0490 JBQ	0.0154	5.31	1
11031	123678-HxCDF	57117-44-9	0.0296 JBQ	0.0117	5.31	1
11031	123789-HxCDF	72918-21-9	0.0615 JBQ	0.0122	5.31	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.0108	5.31	1
11031	1234678-HpCDF	67562-39-4	0.140 JB	0.0111	5.31	1
11031	1234789-HpCDF	55673-89-7	0.0257 JBQ	0.0146	5.31	1
11031	OCDF	39001-02-0	0.149 JB	0.0234	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5201 SDG#: DX152-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 02:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0263 U	0.0263	1.11	1
11031	12378-PeCDD	40321-76-4	0.0308 U	0.0308	5.56	1
11031	123478-HxCDD	39227-28-6	0.0229 JBQ	0.0184	5.56	1
11031	123678-HxCDD	57653-85-7	0.0187 U	0.0187	5.56	1
11031	123789-HxCDD	19408-74-3	0.0178 U	0.0178	5.56	1
11031	1234678-HpCDD	35822-46-9	0.226 JBQ	0.0219	5.56	1
11031	OCDD	3268-87-9	1.04 JB	0.0330	11.1	1
11031	2378-TCDF	51207-31-9	0.0257 U	0.0257	1.11	1
11031	12378-PeCDF	57117-41-6	0.0171 U	0.0171	5.56	1
11031	23478-PeCDF	57117-31-4	0.0480 JBQ	0.0179	5.56	1
11031	123478-HxCDF	70648-26-9	0.0341 JBQ	0.0161	5.56	1
11031	123678-HxCDF	57117-44-9	0.0279 JB	0.0141	5.56	1
11031	123789-HxCDF	72918-21-9	0.0151 U	0.0151	5.56	1
11031	234678-HxCDF	60851-34-5	0.0260 JBQ	0.0124	5.56	1
11031	1234678-HpCDF	67562-39-4	0.142 JB	0.0104	5.56	1
11031	1234789-HpCDF	55673-89-7	0.0336 JBQ	0.0143	5.56	1
11031	OCDF	39001-02-0	0.173 JBQ	0.0280	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 03:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.1 B	0.0299	1.09	1
11031	12378-PeCDD	40321-76-4	98.6 B	0.0431	5.45	1
11031	123478-HxCDD	39227-28-6	97.6 B	0.0332	5.45	1
11031	123678-HxCDD	57653-85-7	97.4 B	0.0341	5.45	1
11031	123789-HxCDD	19408-74-3	108 B	0.0333	5.45	1
11031	1234678-HpCDD	35822-46-9	105 B	0.0644	5.45	1
11031	OCDD	3268-87-9	201 B	0.0361	10.9	1
11031	2378-TCDF	51207-31-9	20.3 B	0.0494	1.09	1
11031	12378-PeCDF	57117-41-6	99.9 B	0.0344	5.45	1
11031	23478-PeCDF	57117-31-4	95.1 B	0.0334	5.45	1
11031	123478-HxCDF	70648-26-9	101 B	0.0645	5.45	1
11031	123678-HxCDF	57117-44-9	101 B	0.0542	5.45	1
11031	123789-HxCDF	72918-21-9	105 B	0.0600	5.45	1
11031	234678-HxCDF	60851-34-5	96.6 B	0.0512	5.45	1
11031	1234678-HpCDF	67562-39-4	92.7 B	0.0413	5.45	1
11031	1234789-HpCDF	55673-89-7	102 B	0.0577	5.45	1
11031	OCDF	39001-02-0	203 B	0.0391	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 04:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.7	B	0.0442	1
11031	12378-PeCDD	40321-76-4	103	B	0.0403	1
11031	123478-HxCDD	39227-28-6	102	B	0.0534	1
11031	123678-HxCDD	57653-85-7	99.5	B	0.0544	1
11031	123789-HxCDD	19408-74-3	106	B	0.0495	1
11031	1234678-HpCDD	35822-46-9	108	B	0.0684	1
11031	OCDD	3268-87-9	196	B	0.0422	1
11031	2378-TCDF	51207-31-9	20.5	B	0.0526	1
11031	12378-PeCDF	57117-41-6	98.7	B	0.0372	1
11031	23478-PeCDF	57117-31-4	95.5	B	0.0368	1
11031	123478-HxCDF	70648-26-9	100	B	0.0759	1
11031	123678-HxCDF	57117-44-9	102	B	0.0630	1
11031	123789-HxCDF	72918-21-9	102	B	0.0523	1
11031	234678-HxCDF	60851-34-5	99.7	B	0.0456	1
11031	1234678-HpCDF	67562-39-4	93.4	B	0.0589	1
11031	1234789-HpCDF	55673-89-7	98.6	B	0.0668	1
11031	OCDF	39001-02-0	205	B	0.0493	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	48	26 - 152
13C12-123678-HxCDF	54	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 05:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0275 U	0.0275	1.07	1
11031	12378-PeCDD	40321-76-4	0.0308 JBQ	0.0275	5.34	1
11031	123478-HxCDD	39227-28-6	0.0541 JBQ	0.0220	5.34	1
11031	123678-HxCDD	57653-85-7	0.0639 JB	0.0227	5.34	1
11031	123789-HxCDD	19408-74-3	0.0335 JBQ	0.0208	5.34	1
11031	1234678-HpCDD	35822-46-9	0.184 JBQ	0.0256	5.34	1
11031	OCDD	3268-87-9	0.489 JB	0.0336	10.7	1
11031	2378-TCDF	51207-31-9	0.0341 U	0.0341	1.07	1
11031	12378-PeCDF	57117-41-6	0.0509 JBQ	0.0174	5.34	1
11031	23478-PeCDF	57117-31-4	0.0758 JB	0.0176	5.34	1
11031	123478-HxCDF	70648-26-9	0.0575 JBQ	0.0207	5.34	1
11031	123678-HxCDF	57117-44-9	0.0452 JBQ	0.0162	5.34	1
11031	123789-HxCDF	72918-21-9	0.0557 JBQ	0.0173	5.34	1
11031	234678-HxCDF	60851-34-5	0.0667 JB	0.0143	5.34	1
11031	1234678-HpCDF	67562-39-4	0.136 JB	0.0114	5.34	1
11031	1234789-HpCDF	55673-89-7	0.0488 JBQ	0.0176	5.34	1
11031	OCDF	39001-02-0	0.246 JBQ	0.0323	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 06:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0243 U	0.0243	1.10	1
11031	12378-PeCDD	40321-76-4	0.0588 JB	0.0299	5.48	1
11031	123478-HxCDD	39227-28-6	0.0401 JBQ	0.0207	5.48	1
11031	123678-HxCDD	57653-85-7	0.0562 JBQ	0.0210	5.48	1
11031	123789-HxCDD	19408-74-3	0.0766 JBQ	0.0189	5.48	1
11031	1234678-HpCDD	35822-46-9	0.211 JB	0.0230	5.48	1
11031	OCDD	3268-87-9	0.563 JB	0.0341	11.0	1
11031	2378-TCDF	51207-31-9	0.0236 U	0.0236	1.10	1
11031	12378-PeCDF	57117-41-6	0.0565 JBQ	0.0166	5.48	1
11031	23478-PeCDF	57117-31-4	0.0699 JBQ	0.0180	5.48	1
11031	123478-HxCDF	70648-26-9	0.0763 JBQ	0.0197	5.48	1
11031	123678-HxCDF	57117-44-9	0.0378 JBQ	0.0164	5.48	1
11031	123789-HxCDF	72918-21-9	0.0635 JBQ	0.0174	5.48	1
11031	234678-HxCDF	60851-34-5	0.0628 JBQ	0.0151	5.48	1
11031	1234678-HpCDF	67562-39-4	0.135 JBQ	0.0116	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0401 JBQ	0.0155	5.48	1
11031	OCDF	39001-02-0	0.200 JB	0.0294	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5204 SDG#: DX152-04FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 07:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0244 U	0.0244	0.994	1
11031	12378-PeCDD	40321-76-4	0.109 JB	0.0250	4.97	1
11031	123478-HxCDD	39227-28-6	0.102 JBQ	0.0305	4.97	1
11031	123678-HxCDD	57653-85-7	0.199 JBQ	0.0308	4.97	1
11031	123789-HxCDD	19408-74-3	0.162 JBQ	0.0293	4.97	1
11031	1234678-HpCDD	35822-46-9	4.42 JB	0.0386	4.97	1
11031	OCDD	3268-87-9	42.6 B	0.0292	9.94	1
11031	2378-TCDF	51207-31-9	0.0253 U	0.0253	0.994	1
11031	12378-PeCDF	57117-41-6	0.173 JB	0.0249	4.97	1
11031	23478-PeCDF	57117-31-4	0.178 JB	0.0253	4.97	1
11031	123478-HxCDF	70648-26-9	1.17 JB	0.0413	4.97	1
11031	123678-HxCDF	57117-44-9	0.160 JBQ	0.0358	4.97	1
11031	123789-HxCDF	72918-21-9	0.0732 JB	0.0411	4.97	1
11031	234678-HxCDF	60851-34-5	0.127 JBQ	0.0343	4.97	1
11031	1234678-HpCDF	67562-39-4	1.27 JB	0.0146	4.97	1
11031	1234789-HpCDF	55673-89-7	0.116 JBQ	0.0231	4.97	1
11031	OCDF	39001-02-0	3.79 JB	0.0335	9.94	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	88	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	96	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	108	23 - 140
13C12-OCDD	105	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 08:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0364 JBQ	0.0269	1.06	1
11031	12378-PeCDD	40321-76-4	0.225 JB	0.0282	5.28	1
11031	123478-HxCDD	39227-28-6	0.112 JB	0.0208	5.28	1
11031	123678-HxCDD	57653-85-7	0.112 JBQ	0.0216	5.28	1
11031	123789-HxCDD	19408-74-3	0.0927 JBQ	0.0200	5.28	1
11031	1234678-HpCDD	35822-46-9	0.294 JB	0.0262	5.28	1
11031	OCDD	3268-87-9	0.521 JB	0.0294	10.6	1
11031	2378-TCDF	51207-31-9	0.0466 JBQ	0.0247	1.06	1
11031	12378-PeCDF	57117-41-6	0.177 JB	0.0161	5.28	1
11031	23478-PeCDF	57117-31-4	0.192 JB	0.0167	5.28	1
11031	123478-HxCDF	70648-26-9	0.153 JBQ	0.0198	5.28	1
11031	123678-HxCDF	57117-44-9	0.146 JB	0.0164	5.28	1
11031	123789-HxCDF	72918-21-9	0.101 JBQ	0.0198	5.28	1
11031	234678-HxCDF	60851-34-5	0.108 JB	0.0165	5.28	1
11031	1234678-HpCDF	67562-39-4	0.142 JBQ	0.00947	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0817 JB	0.0144	5.28	1
11031	OCDF	39001-02-0	0.174 JB	0.0280	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	53	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 09:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	9.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.137 JBQ	0.0205	1.08	1
11031	12378-PeCDD	40321-76-4	0.312 JB	0.0275	5.40	1
11031	123478-HxCDD	39227-28-6	0.156 JB	0.0224	5.40	1
11031	123678-HxCDD	57653-85-7	0.135 JB	0.0216	5.40	1
11031	123789-HxCDD	19408-74-3	0.162 JB	0.0206	5.40	1
11031	1234678-HpCDD	35822-46-9	0.334 JB	0.0238	5.40	1
11031	OCDD	3268-87-9	0.627 JB	0.0315	10.8	1
11031	2378-TCDF	51207-31-9	0.137 JB	0.0200	1.08	1
11031	12378-PeCDF	57117-41-6	0.391 JB	0.0157	5.40	1
11031	23478-PeCDF	57117-31-4	0.353 JB	0.0165	5.40	1
11031	123478-HxCDF	70648-26-9	0.285 JBQ	0.0346	5.40	1
11031	123678-HxCDF	57117-44-9	0.236 JB	0.0257	5.40	1
11031	123789-HxCDF	72918-21-9	0.205 JBQ	0.0244	5.40	1
11031	234678-HxCDF	60851-34-5	0.156 JB	0.0195	5.40	1
11031	1234678-HpCDF	67562-39-4	0.237 JB	0.0139	5.40	1
11031	1234789-HpCDF	55673-89-7	0.164 JB	0.0173	5.40	1
11031	OCDF	39001-02-0	0.308 JBQ	0.0276	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	37	26 - 152
13C12-123678-HxCDF	49	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5207 SDG#: DX152-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 13:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0439 JQ	0.0251	1.08	1
11031	12378-PeCDD	40321-76-4	0.142 JQ	0.0260	5.39	1
11031	123478-HxCDD	39227-28-6	0.0475 JB	0.0213	5.39	1
11031	123678-HxCDD	57653-85-7	0.0751 JBQ	0.0222	5.39	1
11031	123789-HxCDD	19408-74-3	0.0631 JBQ	0.0212	5.39	1
11031	1234678-HpCDD	35822-46-9	0.297 JB	0.0223	5.39	1
11031	OCDD	3268-87-9	0.704 JB	0.0277	10.8	1
11031	2378-TCDF	51207-31-9	0.0507 JQ	0.0194	1.08	1
11031	12378-PeCDF	57117-41-6	0.130 JBQ	0.0124	5.39	1
11031	23478-PeCDF	57117-31-4	0.132 JBQ	0.0128	5.39	1
11031	123478-HxCDF	70648-26-9	0.0805 JB	0.0130	5.39	1
11031	123678-HxCDF	57117-44-9	0.0425 JB	0.0111	5.39	1
11031	123789-HxCDF	72918-21-9	0.0553 JBQ	0.0158	5.39	1
11031	234678-HxCDF	60851-34-5	0.0793 JB	0.0123	5.39	1
11031	1234678-HpCDF	67562-39-4	0.0947 JB	0.00898	5.39	1
11031	1234789-HpCDF	55673-89-7	0.0393 J	0.0194	5.39	1
11031	OCDF	39001-02-0	0.233 JBQ	0.0421	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	97	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	118	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11307002	11/05/2011 23:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11307002	11/03/2011 09:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0198 U	0.0198	1.10	1
11031	12378-PeCDD	40321-76-4	0.0958 JBQ	0.0247	5.48	1
11031	123478-HxCDD	39227-28-6	0.0461 JBQ	0.0175	5.48	1
11031	123678-HxCDD	57653-85-7	0.0523 JBQ	0.0178	5.48	1
11031	123789-HxCDD	19408-74-3	0.0465 JB	0.0182	5.48	1
11031	1234678-HpCDD	35822-46-9	0.248 JBQ	0.0217	5.48	1
11031	OCDD	3268-87-9	0.509 JB	0.0258	11.0	1
11031	2378-TCDF	51207-31-9	0.0269 JB	0.0178	1.10	1
11031	12378-PeCDF	57117-41-6	0.106 JB	0.0137	5.48	1
11031	23478-PeCDF	57117-31-4	0.114 JBQ	0.0142	5.48	1
11031	123478-HxCDF	70648-26-9	0.0940 JBQ	0.0145	5.48	1
11031	123678-HxCDF	57117-44-9	0.0644 JBQ	0.0131	5.48	1
11031	123789-HxCDF	72918-21-9	0.0482 JBQ	0.0151	5.48	1
11031	234678-HxCDF	60851-34-5	0.0588 JB	0.0121	5.48	1
11031	1234678-HpCDF	67562-39-4	0.106 JB	0.00919	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0557 JBQ	0.0137	5.48	1
11031	OCDF	39001-02-0	0.158 JBQ	0.0247	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.

Submitted: 10/22/2011 09:30

14420 Albemarle Point Place

Reported: 11/08/2011 23:08

Suite 210

Chantilly VA 20151

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5209 SDG#: DX152-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 15:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11305162401A Moisture Content by 160.3	Sample number(s): 6446825-6446835				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11301002	Sample number(s): 6446825-6446833, 6446835								
2378-TCDD	0.0738 J	0.0256	1.00	ng/kg	94		67-158		
12378-PeCDD	0.349 J	0.0297	5.00	ng/kg	91		70-142		
123478-HxCDD	0.147 J	0.0239	5.00	ng/kg	88		70-164		
123678-HxCDD	0.124 J	0.0230	5.00	ng/kg	91		76-134		
123789-HxCDD	0.145 J	0.0233	5.00	ng/kg	93		64-162		
1234678-HpCDD	0.286 J	0.0210	5.00	ng/kg	93		70-140		
OCDD	0.418 J	0.0269	10.0	ng/kg	91		78-144		
2378-TCDF	0.0617 J	0.0236	1.00	ng/kg	93		75-158		
12378-PeCDF	0.328 J	0.0165	5.00	ng/kg	88		80-134		
23478-PeCDF	0.295 J	0.0166	5.00	ng/kg	86		68-160		
123478-HxCDF	0.197 J	0.0257	5.00	ng/kg	90		72-134		
123678-HxCDF	0.216 J	0.0212	5.00	ng/kg	90		84-130		
123789-HxCDF	0.174 J	0.0210	5.00	ng/kg	94		78-130		
234678-HxCDF	0.159 J	0.0196	5.00	ng/kg	89		70-156		
1234678-HpCDF	0.172 J	0.0113	5.00	ng/kg	85		82-122		
1234789-HpCDF	0.0917 J	0.0149	5.00	ng/kg	88		78-138		
OCDF	0.220 J	0.0265	10.0	ng/kg	91		63-170		

Batch number: 11307002	Sample number(s): 6446834								
2378-TCDD	0.0250 U	0.0250	1.00	ng/kg	110		67-158		
12378-PeCDD	0.0263 U	0.0263	5.00	ng/kg	108		70-142		
123478-HxCDD	0.0229 J	0.0182	5.00	ng/kg	103		70-164		
123678-HxCDD	0.0323 J	0.0182	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0212 J	0.0186	5.00	ng/kg	105		64-162		
1234678-HpCDD	0.268 J	0.0221	5.00	ng/kg	102		70-140		
OCDD	0.412 J	0.0259	10.0	ng/kg	98		78-144		
2378-TCDF	0.0197 U	0.0197	1.00	ng/kg	108		75-158		
12378-PeCDF	0.0304 J	0.0104	5.00	ng/kg	105		80-134		
23478-PeCDF	0.0732 J	0.0110	5.00	ng/kg	99		68-160		
123478-HxCDF	0.0245 J	0.0131	5.00	ng/kg	100		72-134		
123678-HxCDF	0.0169 J	0.0110	5.00	ng/kg	99		84-130		
123789-HxCDF	0.0396 J	0.0154	5.00	ng/kg	101		78-130		
234678-HxCDF	0.0200 J	0.0127	5.00	ng/kg	100		70-156		
1234678-HpCDF	0.0783 J	0.00700	5.00	ng/kg	93		82-122		
1234789-HpCDF	0.0162 U	0.0162	5.00	ng/kg	101		78-138		
OCDF	0.185 J	0.0413	10.0	ng/kg	101		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11305162401A Moisture Content by 160.3	Sample number(s): 6446825-6446835 BKG: P446810 10.5 10.7 1 20								
Batch number: 11301002	Sample number(s): 6446825-6446833, 6446835 UNSPK: 6446826								
2378-TCDD	97	94	67-158	2	25				
12378-PeCDD	91	93	70-142	4	25				
123478-HxCDD	90	92	70-164	4	25				
123678-HxCDD	89	91	76-134	2	25				
123789-HxCDD	99	96	64-162	2	25				
1234678-HpCDD	96	98	70-140	2	25				
OCDD	92	89	78-144	2	25				
2378-TCDF	93	93	75-158	1	25				
12378-PeCDF	92	90	80-134	1	25				
23478-PeCDF	87	87	68-160	0	25				
123478-HxCDF	93	91	72-134	1	25				
123678-HxCDF	93	93	84-130	1	25				
123789-HxCDF	96	93	78-130	3	25				
234678-HxCDF	89	91	70-156	3	25				
1234678-HpCDF	85	85	82-122	1	25				
1234789-HpCDF	93	90	78-138	3	25				
OCDF	93	93	63-170	1	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11301002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6446825	82	71	52	64	74	70
6446826	76	69	59	63	72	68
6446827	74	69	58	65	72	68
6446828	74	67	48	54	74	76
6446829	79	68	52	63	71	67
6446830	74	64	54	62	67	64
6446831	88	83	72	82	83	81
6446832	74	69	53	63	65	60
6446833	76	66	37	49	67	59
6446835	76	71	63	67	72	68
Blank	73	71	53	62	66	67
MS	74	69	58	65	72	68
MSD	74	67	48	54	74	76
OPR	83	72	42	55	73	73
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6446825	81	73	73	84	85	84
6446826	82	71	70	81	78	81
6446827	84	70	70	82	80	78
6446828	71	74	70	77	80	78
6446829	87	71	68	80	84	83
6446830	80	69	63	76	78	77
6446831	110	80	73	95	93	96
6446832	84	64	64	83	75	73
6446833	64	61	59	77	74	76
6446835	86	67	64	83	78	79
Blank	80	69	66	79	77	77
MS	84	70	70	82	80	78
MSD	71	74	70	77	80	78
OPR	71	74	69	88	83	79

Limits: 28-143 26-138 17-157 25-181 32-141 28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6446825	87	94	95	73	79
6446826	83	91	92	67	75
6446827	81	90	91	66	75
6446828	83	88	93	64	74
6446829	86	92	93	65	76
6446830	79	83	83	65	74
6446831	99	108	105	76	93
6446832	79	86	90	64	78
6446833	81	79	81	65	75
6446835	80	87	88	68	78
Blank	79	86	87	60	73
MS	81	90	91	66	75
MSD	83	88	93	64	74
OPR	90	96	94	67	81

Limits: 28-130 23-140 17-157 24-169 24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11307002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6446834	84	82	79	93	82	73
Blank	65	65	64	76	67	64
OPR	71	66	63	79	67	58

Limits: 25-164 21-178 26-152 26-123 28-136 29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6446834	118	67	58	85	89	90
Blank	102	55	46	69	74	78
OPR	107	50	42	73	79	80

Limits: 28-143 26-138 17-157 25-181 32-141 28-130

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Surrogate Quality Control

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6446834	87	91	90	86	97
Blank	75	78	75	64	75
OPR	81	81	78	68	80
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acc# 13013 Cp# 1272729

Sample# 0446825-35

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 6010/6020/6040/6041A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBAPCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Pesticide Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8015A	**H-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B		**Detergent EPA 8270
		SL-017-SA8S-SB-4.0-5.0	10.21.11	1113	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-018-SA8S-SB-4.0-5.0MS	10.21.11	1023	SOIL	NONE	8-16 oz Jars	X	X	X	X	X	X	X	X													MS.MSD
		SL-018-SA8S-SB-7.5-8.5	10.21.11	0930	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		DUP02-SA8S-QC-102111	10.21.11	1015	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	1-SS Sleeve			X	X																	
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X													
		SL-014-SA8S-SB-4.0-5.0	10.21.11	1431	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-014-SA8S-SB-7.0-8.0	10.21.11	1422	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-015-SA8S-SB-4.0-5.0	10.21.11	1523	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		SL-015-SA8S-SB-9.0-10.0	10.21.11	1519	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
		EB-SA8S-SB-102111	10.21.11	1430	SOIL	NONE	1-1 L Amber																					
		TB-1012111	10.21.11	0800	WATER	NONE	2-40 mL Vials									X				X								HGL ASTM II WATER-DPTcrew
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)													Laboratory:											
		10/20/2011 / 1630		10/22/11 0930													Lancaster Laboratories, Inc.											
Received by: (Signature)		Date/Time		Airbill No.(s)																								
				8767 9858 7592,7630																								

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/30/2011

Group Number: 1269114

SDG: DE258

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA8S-SS-0.0-0.5 Soil	6423855
SL-003-SA8S-SS-0.0-0.5 Soil	6423856
SL-003-SA8S-SS-0.0-0.5MS Soil	6423857
SL-003-SA8S-SS-0.0-0.5MSD Soil	6423858
SL-003-SA8S-SS-0.0-0.5DUP Soil	6423859
SL-003-SA8S-SS-0.0-0.5RL MS Soil	6423860
SL-003-SA8S-SS-0.0-0.5RL LCS Soil	6423861
SL-005-SA8S-SS-0.0-0.5 Soil	6423862
SL-007-SA8S-SS-0.0-0.5 Soil	6423863
SL-013-SA8S-SS-0.0-0.5 Soil	6423864
SL-014-SA8S-SS-0.0-0.5 Soil	6423865
SL-015-SA8S-SS-0.0-0.5 Soil	6423866
SL-024-SA8S-SS-0.0-0.5 Soil	6423867
DUP01-SA8S-QC-092911 Soil	6423868
SL-126-SA7-SB-4.0-5.0 Soil	6423869
SL-127-SA7-SB-4.0-5.0 Soil	6423870
SL-177-SA7-SB-3.0-4.0 Soil	6423871
TB-092911 Water	6423872

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

Attn: Todd Burgess

COPY TO
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Sarah M. Snyder
Senior Specialist

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.8	1
10138	Anthracene	120-12-7	0.35	U 0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71	U 0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.87	J 0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.8	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.91	J 0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	J 0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	16	J 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19	1
10138	Chrysene	218-01-9	1.1	J 0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.4	19	1
10138	Fluoranthene	206-44-0	1.3	J 0.71	1.8	1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71	U 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8	1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	0.71	U 0.71	1.8	1
10138	Pyrene	129-00-0	1.2	J 0.71	1.8	1

The following compounds were detected in the method blank at the respective concentrations of:

bis(2-ethylhexyl)phthalate 7.6 ug/kg

benzo(g,h,i)perylene 1.5 ug/kg

These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.8
10401	Dalapon	75-99-0	4.7	U 4.7	9.5
10401	2,4-DB	94-82-6	0.66	U 0.66	1.8
10401	Dicamba	1918-00-9	0.42	U 0.42	1.3
10401	Dinoseb	88-85-7	0.85	U 0.85	2.5

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	1,900	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.28 U	0.28	0.28	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPA was not detected in the reextract.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.072 J	0.036	0.18	1
01363	Chlordane	57-74-9	1.5 J	0.85	3.6	1
01363	p,p-DDD	72-54-8	0.52 U	0.52	0.52	1
01363	p,p-DDE	72-55-9	0.85	0.070	0.36	1
01363	p,p-DDT	50-29-3	0.82	0.070	0.36	1
01363	Delta BHC	319-86-8	0.44	0.038	0.18	1
01363	Dieldrin	60-57-1	0.13 U	0.13	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.070 U	0.070	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.070 U	0.070	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.095 U	0.095	0.36	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.047 U	0.047	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.36	1
01363	Toxaphene	8001-35-2	5.3 U	5.3	7.0	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix. The DCB surrogate recovery is above the client specified limits of 20-120%, however it is within the laboratory's in-house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	2.8 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	3.2	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.2	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,500	6.35	21.0	1
07914	Boron	7440-42-8	14.5	0.378	5.25	1
01650	Calcium	7440-70-2	76,800	13.1	105	5
01654	Iron	7439-89-6	37,700	13.7	105	5
01656	Lithium	7439-93-2	25.3	0.65	2.1	1
01657	Magnesium	7439-95-4	7,650	0.462	10.5	1
06958	Manganese	7439-96-5	337	0.0378	0.525	1
10145	Phosphorus	7723-14-0	638	0.367	10.5	1
01662	Potassium	7440-09-7	5,170	11.9	52.5	1
01667	Sodium	7440-23-5	118	6.25	105	1
07968	Strontium	7440-24-6	125	0.0262	0.525	1
06969	Tin	7440-31-5	2.14 J	0.336	10.5	1
06970	Titanium	7440-32-6	1,350	0.0724	1.02	1
10146	Zirconium	7440-67-7	2.86 J	0.483	5.25	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.225	0.0755	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.60	0.0816	0.408	2
06126	Barium	7440-39-3	138	0.108	0.408	2
06127	Beryllium	7440-41-7	0.853	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.389	0.0449	0.102	2
06131	Chromium	7440-47-3	47.4	0.122	0.408	2
06132	Cobalt	7440-48-4	12.2	0.0204	0.102	2
06133	Copper	7440-50-8	23.5	0.0816	0.408	2
06135	Lead	7439-92-1	18.2	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.461	0.0510	0.102	2
06139	Nickel	7440-02-0	25.7	0.102	0.408	2
06141	Selenium	7782-49-2	0.489	0.0591	0.408	2
06142	Silver	7440-22-4	0.0357 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.420	0.0306	0.102	2
06148	Vanadium	7440-62-2	86.2	0.0224	0.102	2
06149	Zinc	7440-66-6	90.9	0.571	3.06	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0132 J	0.0073	0.103	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.42 J	0.21	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.43	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 04:38	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 20:04	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 02:10	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 17:42	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:06	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:53	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/13/2011 11:53	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:16	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:42	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:19	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 14:28	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:06	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 12:52	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	20	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.9 J	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2 U	1.2	3.7
10401	Dalapon	75-99-0	4.5 U	4.5	9.3
10401	2,4-DB	94-82-6	0.64 U	0.64	1.8
10401	Dicamba	1918-00-9	0.41 U	0.41	1.2
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8
10401	MCPA	94-74-6	130 U	130	260
10401	MCPP (Mecoprop)	93-65-2	280	77	260
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18
10401	2,4,5-TP	93-72-1	0.13 U	0.13	0.18

The LCS data is outside the QC limits for various compounds. Results from the

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPP was not detected in the reextract..						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	0.82 U	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.48	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.42 U	0.42	0.42	1
01363	Delta BHC	319-86-8	0.059 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.28 U	0.28	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	7.2 U	7.2	7.2	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,900	6.19	20.5	1
07914	Boron	7440-42-8	11.2	0.369	5.12	1
01650	Calcium	7440-70-2	144,000	12.8	102	5
01654	Iron	7439-89-6	20,900	2.67	20.5	1
01656	Lithium	7439-93-2	18.5	0.63	2.0	1
01657	Magnesium	7439-95-4	6,100	0.451	10.2	1
06958	Manganese	7439-96-5	278	0.0369	0.512	1
10145	Phosphorus	7723-14-0	452	0.358	10.2	1
01662	Potassium	7440-09-7	3,130	11.6	51.2	1
01667	Sodium	7440-23-5	121	6.09	102	1
07968	Strontium	7440-24-6	156	0.0256	0.512	1
06969	Tin	7440-31-5	1.94 J	0.328	10.2	1
06970	Titanium	7440-32-6	832	0.0706	0.994	1
10146	Zirconium	7440-67-7	3.40 J	0.471	5.12	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.206	0.0750	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.79	0.0811	0.406	2
06126	Barium	7440-39-3	93.2	0.107	0.406	2
06127	Beryllium	7440-41-7	0.656	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.300	0.0446	0.101	2
06131	Chromium	7440-47-3	29.9	0.122	0.406	2
06132	Cobalt	7440-48-4	9.60	0.0203	0.101	2
06133	Copper	7440-50-8	18.8	0.0811	0.406	2
06135	Lead	7439-92-1	20.8	0.0103	0.203	2
06138	Molybdenum	7439-98-7	0.322	0.0507	0.101	2
06139	Nickel	7440-02-0	17.1	0.101	0.406	2
06141	Selenium	7782-49-2	0.252 J	0.0588	0.406	2
06142	Silver	7440-22-4	0.0229 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.257	0.0304	0.101	2
06148	Vanadium	7440-62-2	51.6	0.0223	0.101	2
06149	Zinc	7440-66-6	55.1	0.568	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0184 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.81	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 03:23	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 14:38	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 00:48	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 17:56	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:25	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:11	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 10:50	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:12	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:12	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:12	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:20	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 11:49	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 11:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 13:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	17	170	1
04688	Acenaphthylene	208-96-8	1,700	17	170	1
04688	Aniline	62-53-3	1,400	170	520	1
04688	Anthracene	120-12-7	1,800	17	170	1
04688	Benziidine	92-87-5	3,200	J 1,200	3,400	1
04688	Benzo(a)anthracene	56-55-3	1,800	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,900	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,800	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	17	170	1
04688	Benzoic acid	65-85-0	220	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,600	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	2,100	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,700	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,800	17	170	1
04688	Carbazole	86-74-8	1,700	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	34	170	1
04688	4-Chloroaniline	106-47-8	1,100	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,500	17	170	1
04688	2-Chlorophenol	95-57-8	1,700	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	34	170	1
04688	Chrysene	218-01-9	1,900	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,100	100	340	1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170	1
04688	Diethylphthalate	84-66-2	1,700	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,700	34	170	1
04688	3,5-Dimethylphenol	108-68-9	1,800	34	170	1
04688	Dimethylphthalate	131-11-3	1,700	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	560	170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	34	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,800	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	17	340	1
04688	Fluoranthene	206-44-0	1,900	17	170	1
04688	Fluorene	86-73-7	1,700	17	170	1
04688	Hexachlorobenzene	118-74-1	2,100	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,900	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	4,000	170	520	1
04688	Hexachloroethane	67-72-1	1,600	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,900	17	170	1
04688	Isophorone	78-59-1	1,700	17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,600	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,600	17	170	1
04688	2-Methylphenol	95-48-7	1,700	34	170	1
04688	4-Methylphenol	106-44-5	1,700	34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	17	170	1
04688	2-Nitroaniline	88-74-4	1,500	17	170	1
04688	3-Nitroaniline	99-09-2	1,700	34	170	1
04688	4-Nitroaniline	100-01-6	1,200	69	170	1
04688	Nitrobenzene	98-95-3	1,700	17	170	1
04688	2-Nitrophenol	88-75-5	1,500	17	170	1
04688	4-Nitrophenol	100-02-7	1,500	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	34	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,500	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,700	17	170	1
04688	Pentachlorophenol	87-86-5	1,200	170	520	1
04688	Phenanthrene	85-01-8	1,800	17	170	1
04688	Phenol	108-95-2	1,700	17	170	1
04688	Pyrene	129-00-0	1,700	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	34	170	1
	The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.69	1.7	1
10138	Acenaphthylene	208-96-8	32	0.34	1.7	1
10138	Anthracene	120-12-7	34	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	34	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	34	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	31	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	31	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	66	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	39	6.2	19	1
10138	Chrysene	218-01-9	33	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	35	0.69	1.7	1
10138	Diethylphthalate	84-66-2	36	6.2	19	1
10138	Dimethylphthalate	131-11-3	35	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	43	6.2	19	1
10138	Fluoranthene	206-44-0	35	0.69	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Fluorene	86-73-7	34	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	34	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	31	0.69	1.7	1
10138	Naphthalene	91-20-3	31	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	33	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	40	6.2	19	1
10138	Phenanthrene	85-01-8	33	0.69	1.7	1
10138	Pyrene	129-00-0	34	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	6.4	1.2	3.7	1
10401	Dalapon	75-99-0	11	4.5	9.2	1
10401	2,4-DB	94-82-6	6.7	0.64	1.7	1
10401	Dicamba	1918-00-9	0.73 J	0.41	1.2	1
10401	Dinoseb	88-85-7	1.2 J	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	9.6	0.82	1.7	1
10401	MCPA	94-74-6	1,600	78	260	1
10401	MCPP (Mecoprop)	93-65-2	610	77	260	1
10401	2,4,5-T	93-76-5	0.60	0.084	0.18	1
10401	2,4,5-TP	93-72-1	0.13 J	0.078	0.18	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.19	0.068	0.18	1
01363	Alpha BHC	319-84-6	0.19	0.035	0.18	1
01363	Beta BHC	319-85-7	0.20	0.062	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.19	0.035	0.18	1
01363	Chlordane	57-74-9	0.83 U	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.50	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.97	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.87	0.068	0.35	1
01363	Delta BHC	319-86-8	0.28	0.037	0.18	1
01363	Dieldrin	60-57-1	0.35	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.14 J	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.53	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Endrin	72-20-8	0.41	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.51	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.38	0.068	0.35	1
01363	Heptachlor	76-44-8	0.21	0.062	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.24	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.3	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	12 U	12	12	1

The sample was injected after instrument maintenance and a new calibration.
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	12	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	14	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,300	6.26	20.7	1
07914	Boron	7440-42-8	223	0.372	5.17	1
01650	Calcium	7440-70-2	155,000	12.9	103	5
01654	Iron	7439-89-6	21,700	2.70	20.7	1
01656	Lithium	7439-93-2	123	0.64	2.1	1
01657	Magnesium	7439-95-4	6,410	0.455	10.3	1
06958	Manganese	7439-96-5	392	0.0372	0.517	1
10145	Phosphorus	7723-14-0	554	0.362	10.3	1
01662	Potassium	7440-09-7	4,660	11.7	51.7	1
01667	Sodium	7440-23-5	1,150	6.15	103	1
07968	Strontium	7440-24-6	252	0.0259	0.517	1
06969	Tin	7440-31-5	335	0.331	10.3	1
06970	Titanium	7440-32-6	1,150	0.0727	1.02	1
10146	Zirconium	7440-67-7	103	0.476	5.17	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.530	0.0743	0.201	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	10.6	0.0803	0.402	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06126	Barium	7440-39-3	113	0.106	0.402	2
06127	Beryllium	7440-41-7	1.56	0.0161	0.100	2
06128	Cadmium	7440-43-9	1.42	0.0442	0.100	2
06131	Chromium	7440-47-3	46.8	0.120	0.402	2
06132	Cobalt	7440-48-4	64.8	0.0201	0.100	2
06133	Copper	7440-50-8	31.8	0.0803	0.402	2
06135	Lead	7439-92-1	24.4	0.0102	0.201	2
06138	Molybdenum	7439-98-7	12.0	0.0502	0.100	2
06139	Nickel	7440-02-0	30.7	0.100	0.402	2
06141	Selenium	7782-49-2	2.24	0.0582	0.402	2
06142	Silver	7440-22-4	11.1	0.0143	0.100	2
06145	Thallium	7440-28-0	0.747	0.0301	0.100	2
06148	Vanadium	7440-62-2	76.1	0.0221	0.100	2
06149	Zinc	7440-66-6	69.7	0.562	3.01	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.177	0.0073	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	7.6	0.84	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	584	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	36.9	1.0	5.2	5
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 03:48	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 15:10	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 01:15	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:11	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:44	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:29	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:23	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 14:16	Ashley M Adams	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 12:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:02	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,500	17	170	1
04688	Acenaphthylene	208-96-8	1,500	17	170	1
04688	Aniline	62-53-3	970	170	520	1
04688	Anthracene	120-12-7	1,600	17	170	1
04688	Benziidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzo(a)anthracene	56-55-3	1,600	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,700	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,600	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,700	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170	1
04688	Benzoic acid	65-85-0	200	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,800	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,500	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,600	17	170	1
04688	Carbazole	86-74-8	1,500	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,400	34	170	1
04688	4-Chloroaniline	106-47-8	550	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,300	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,400	17	170	1
04688	2-Chlorophenol	95-57-8	1,600	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,500	34	170	1
04688	Chrysene	218-01-9	1,600	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,700	17	170	1
04688	Dibenzofuran	132-64-9	1,500	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,400	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	700	100	340	1
04688	2,4-Dichlorophenol	120-83-2	1,600	17	170	1
04688	Diethylphthalate	84-66-2	1,500	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,600	34	170	1
04688	3,5-Dimethylphenol	108-68-9	1,600	34	170	1
04688	Dimethylphthalate	131-11-3	1,500	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	720	170	520	1
04688	2,4-Dinitrophenol	51-28-5	700	J 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,500	34	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,600	17	340	1
04688	Fluoranthene	206-44-0	1,600	17	170	1
04688	Fluorene	86-73-7	1,500	17	170	1
04688	Hexachlorobenzene	118-74-1	1,900	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,800	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	4,000	170	520	1
04688	Hexachloroethane	67-72-1	1,500	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,700	17	170	1
04688	Isophorone	78-59-1	1,500	17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,400	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,500	17	170	1
04688	2-Methylphenol	95-48-7	1,500	34	170	1
04688	4-Methylphenol	106-44-5	1,500	34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,400	17	170	1
04688	2-Nitroaniline	88-74-4	1,400	17	170	1
04688	3-Nitroaniline	99-09-2	1,300	34	170	1
04688	4-Nitroaniline	100-01-6	1,000	69	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,500	17	170	1
04688	4-Nitrophenol	100-02-7	1,400	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	34	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,600	17	170	1
04688	Pentachlorophenol	87-86-5	1,500	170	520	1
04688	Phenanthrene	85-01-8	1,500	17	170	1
04688	Phenol	108-95-2	1,600	17	170	1
04688	Pyrene	129-00-0	1,500	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	34	170	1
	The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	29	0.69	1.7	1
10138	Acenaphthylene	208-96-8	28	0.34	1.7	1
10138	Anthracene	120-12-7	30	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	29	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	30	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	19	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	30	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	51	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	39	6.2	19	1
10138	Chrysene	218-01-9	30	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	23	0.69	1.7	1
10138	Diethylphthalate	84-66-2	34	6.2	19	1
10138	Dimethylphthalate	131-11-3	31	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	51	6.2	19	1
10138	Fluoranthene	206-44-0	32	0.69	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Fluorene	86-73-7	31	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	22	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	28	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	27	0.69	1.7	1
10138	Naphthalene	91-20-3	28	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	28	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	40	6.2	19	1
10138	Phenanthrene	85-01-8	29	0.69	1.7	1
10138	Pyrene	129-00-0	29	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	6.6	1.2	3.7	1
10401	Dalapon	75-99-0	8.9 J	4.5	9.3	1
10401	2,4-DB	94-82-6	5.5	0.64	1.8	1
10401	Dicamba	1918-00-9	0.72 J	0.41	1.2	1
10401	Dinoseb	88-85-7	5.2	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	9.9	0.83	1.8	1
10401	MCPA	94-74-6	1,800	78	260	1
10401	MCPP (Mecoprop)	93-65-2	660	77	260	1
10401	2,4,5-T	93-76-5	0.40	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.36	0.078	0.18	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.19	0.068	0.18	1
01363	Alpha BHC	319-84-6	0.18	0.035	0.18	1
01363	Beta BHC	319-85-7	0.18	0.062	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.19	0.035	0.18	1
01363	Chlordane	57-74-9	0.83 U	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.48	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.91	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.81	0.068	0.35	1
01363	Delta BHC	319-86-8	0.28	0.037	0.18	1
01363	Dieldrin	60-57-1	0.32 J	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.18	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.47	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.34 J	0.068	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Endrin	72-20-8	0.39	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.47	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.20	0.062	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.24	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.1	0.35	1.7	1
01363	Mirex	2385-85-5	0.19 J	0.068	0.35	1
01363	Toxaphene	8001-35-2	8.6 U	8.6	8.6	1

The sample was injected after instrument maintenance and a new calibration.
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	14	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	16	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,300	6.19	20.5	1
07914	Boron	7440-42-8	219	0.369	5.12	1
01650	Calcium	7440-70-2	148,000	12.8	102	5
01654	Iron	7439-89-6	21,600	2.67	20.5	1
01656	Lithium	7439-93-2	123	0.63	2.0	1
01657	Magnesium	7439-95-4	6,700	0.451	10.2	1
06958	Manganese	7439-96-5	336	0.0369	0.512	1
10145	Phosphorus	7723-14-0	561	0.358	10.2	1
01662	Potassium	7440-09-7	4,880	11.6	51.2	1
01667	Sodium	7440-23-5	1,130	6.09	102	1
07968	Strontium	7440-24-6	245	0.0256	0.512	1
06969	Tin	7440-31-5	328	0.328	10.2	1
06970	Titanium	7440-32-6	1,130	0.0706	0.994	1
10146	Zirconium	7440-67-7	102	0.471	5.12	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.650	0.0750	0.203	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	11.0	0.0811	0.406	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06126	Barium	7440-39-3	126	0.107	0.406	2
06127	Beryllium	7440-41-7	1.60	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.63	0.0446	0.101	2
06131	Chromium	7440-47-3	51.0	0.122	0.406	2
06132	Cobalt	7440-48-4	75.1	0.0203	0.101	2
06133	Copper	7440-50-8	35.7	0.0811	0.406	2
06135	Lead	7439-92-1	28.5	0.0103	0.203	2
06138	Molybdenum	7439-98-7	13.9	0.0507	0.101	2
06139	Nickel	7440-02-0	35.2	0.101	0.406	2
06141	Selenium	7782-49-2	2.49	0.0588	0.406	2
06142	Silver	7440-22-4	12.9	0.0144	0.101	2
06145	Thallium	7440-28-0	0.841	0.0304	0.101	2
06148	Vanadium	7440-62-2	80.5	0.0223	0.101	2
06149	Zinc	7440-66-6	73.4	0.568	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.175	0.0069	0.0979	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 04:13	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 19:33	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 01:42	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:26	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:03	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:33	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,300	6.02	19.9	1
07914	Boron	7440-42-8	10.9	0.358	4.97	1
01650	Calcium	7440-70-2	139,000	12.4	99.4	5
01654	Iron	7439-89-6	24,600	2.60	19.9	1
01656	Lithium	7439-93-2	18.3	0.62	2.0	1
01657	Magnesium	7439-95-4	6,120	0.438	9.94	1
06958	Manganese	7439-96-5	313	0.0358	0.497	1
10145	Phosphorus	7723-14-0	460	0.348	9.94	1
01662	Potassium	7440-09-7	3,150	11.2	49.7	1
01667	Sodium	7440-23-5	112	5.92	99.4	1
07968	Strontium	7440-24-6	154	0.0249	0.497	1
06969	Tin	7440-31-5	1.95 J	0.318	9.94	1
06970	Titanium	7440-32-6	844	0.0727	1.02	1
10146	Zirconium	7440-67-7	4.19 J	0.457	4.97	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.232	0.0736	0.199	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	9.15	0.0795	0.398	2
06126	Barium	7440-39-3	111	0.105	0.398	2
06127	Beryllium	7440-41-7	0.794	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.364	0.0438	0.0994	2
06131	Chromium	7440-47-3	35.1	0.119	0.398	2
06132	Cobalt	7440-48-4	9.48	0.0199	0.0994	2
06133	Copper	7440-50-8	23.7	0.0795	0.398	2
06135	Lead	7439-92-1	23.8	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.455	0.0497	0.0994	2
06139	Nickel	7440-02-0	20.4	0.0994	0.398	2
06141	Selenium	7782-49-2	0.303 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0176 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.313	0.0298	0.0994	2
06148	Vanadium	7440-62-2	64.9	0.0219	0.0994	2
06149	Zinc	7440-66-6	67.1	0.557	2.98	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0131 J	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.53 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.82	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:26	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 10:59	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:22	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 12:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 12:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:38	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 2

Sample Description: SL-003-SA8S-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423860
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	3.9 J	3.8	9.3	1
10401	2,4-DB	94-82-6	1.6 J	0.64	1.8	1
10401	Dicamba	1918-00-9	0.46 J	0.41	1.2	1
10401	Dinoseb	88-85-7	1.3 J	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.6 J	0.83	1.8	1
10401	MCPA	94-74-6	890	79	260	1
10401	MCPP (Mecoprop)	93-65-2	120 J	78	260	1
10401	2,4,5-T	93-76-5	0.45	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.43	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.087 J	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.084 J	0.035	0.17	1
01363	Beta BHC	319-85-7	0.10 J	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.094 J	0.035	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.23 J	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.64	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.50	0.068	0.35	1
01363	Delta BHC	319-86-8	0.14 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.16 J	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.16 J	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.20 J	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.29 J	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.22 J	0.068	0.35	1
01363	Heptachlor	76-44-8	0.10 J	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.074 J	0.035	0.17	1
01363	Methoxychlor	72-43-5	1.0 J	0.35	1.7	1
01363	Mirex	2385-85-5	0.30 J	0.068	0.35	1
01363	Toxaphene	8001-35-2	7.2 U	7.2	7.2	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.2 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	1.7 J	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423860
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	3.2	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 03:32	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:40	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:40	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423861
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Herbicides						
	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	5.0	1.2	3.6	1
10401	Dalapon	75-99-0	3.9 J	3.5	9.0	1
10401	2,4-DB	94-82-6	1.7	0.62	1.7	1
10401	Dicamba	1918-00-9	0.42 J	0.40	1.2	1
10401	Dinoseb	88-85-7	0.61 J	0.60	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	2.3	0.80	1.7	1
10401	MCPA	94-74-6	160 J	76	250	1
10401	MCPP (Mecoprop)	93-65-2	120 J	75	250	1
10401	2,4,5-T	93-76-5	0.21	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.13 J	0.075	0.17	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.088 J	0.034	0.17	1
01363	Beta BHC	319-85-7	0.12 J	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.093 J	0.034	0.17	1
01363	Chlordane	57-74-9	0.80 U	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.18 J	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.16 J	0.066	0.34	1
01363	p,p-DDT	50-29-3	0.16 J	0.066	0.34	1
01363	Delta BHC	319-86-8	0.11 J	0.036	0.17	1
01363	Dieldrin	60-57-1	0.12 J	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.11 J	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.12 J	0.066	0.34	1
01363	Endrin	72-20-8	0.14 J	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.12 J	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.14 J	0.066	0.34	1
01363	Heptachlor	76-44-8	0.094 J	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.068 J	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.78 J	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.6	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.4 J	0.33	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423861
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.6 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112910026A	10/21/2011 03:55	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:55	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:59	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	112910026A	10/19/2011 10:45	Kelli M Barto	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68	U 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.68	U 0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	19	6.1	18	1
10138	Fluoranthene	206-44-0	0.68	U 0.68	1.7	1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18	1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7	1
10138	Pyrene	129-00-0	0.68	U 0.68	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U	4.5	9.2	1
10401	2,4-DB	94-82-6	0.90	U	0.90	1.7	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.82	U	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U	0.82	1.7	1
10401	MCPA	94-74-6	78	U	78	260	1
10401	MCPP (Mecoprop)	93-65-2	77	U	77	260	1
10401	2,4,5-T	93-76-5	0.22		0.084	0.17	1
10401	2,4,5-TP	93-72-1	0.077	U	0.077	0.17	

The LCS data is outside the QC limits for various compounds. Results from the

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	0.82 U	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.068 U	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.068 U	0.068	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.068 U	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.8	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,100	6.16	20.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	8.92	0.366	5.09	1
01650	Calcium	7440-70-2	239,000	12.7	102	5
01654	Iron	7439-89-6	11,100	2.66	20.4	1
01656	Lithium	7439-93-2	12.7	0.63	2.0	1
01657	Magnesium	7439-95-4	3,930	0.448	10.2	1
06958	Manganese	7439-96-5	167	0.0366	0.509	1
10145	Phosphorus	7723-14-0	228	0.356	10.2	1
01662	Potassium	7440-09-7	1,460	11.5	50.9	1
01667	Sodium	7440-23-5	120	6.05	102	1
07968	Strontium	7440-24-6	182	0.0254	0.509	1
06969	Tin	7440-31-5	1.44 J	0.326	10.2	1
06970	Titanium	7440-32-6	542	0.0722	1.02	1
10146	Zirconium	7440-67-7	2.30 J	0.468	5.09	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.123 J	0.0753	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.49	0.0814	0.407	2
06126	Barium	7440-39-3	82.4	0.108	0.407	2
06127	Beryllium	7440-41-7	0.478	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.232	0.0448	0.102	2
06131	Chromium	7440-47-3	23.8	0.122	0.407	2
06132	Cobalt	7440-48-4	4.85	0.0204	0.102	2
06133	Copper	7440-50-8	9.34	0.0806	0.403	2
06135	Lead	7439-92-1	6.61	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.136	0.0509	0.102	2
06139	Nickel	7440-02-0	9.79	0.102	0.407	2
06141	Selenium	7782-49-2	0.143 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0144 U	0.0144	0.102	2
06145	Thallium	7440-28-0	0.123	0.0305	0.102	2
06148	Vanadium	7440-62-2	37.4	0.0224	0.102	2
06149	Zinc	7440-66-6	27.9	0.570	3.05	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0987	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.8	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.13	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:03	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 20:36	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 04:27	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:09	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:18	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:57	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:21	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:26	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:29	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:52	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	20	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.4	1
10401	2,4-DB	94-82-6	0.65	U	0.65	1.8	1
10401	Dicamba	1918-00-9	0.42	U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.83	U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U	0.83	1.8	1
10401	MCPA	94-74-6	79	U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U	78	260	1
10401	2,4,5-T	93-76-5	0.10	U	0.10	0.18	1
10401	2,4,5-TP	93-72-1	0.078	U	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method.

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.17 U	0.17	0.35	1
01363	p,p-DDT	50-29-3	0.19 U	0.19	0.35	1
01363	Delta BHC	319-86-8	0.045 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.35 U	0.35	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.35	1
01363	Toxaphene	8001-35-2	4.7 U	4.7	6.9	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,700	6.27	20.7	1
07914	Boron	7440-42-8	9.04	0.373	5.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	242,000	12.9	104	5
01654	Iron	7439-89-6	13,600	2.70	20.7	1
01656	Lithium	7439-93-2	15.3	0.64	2.1	1
01657	Magnesium	7439-95-4	4,330	0.456	10.4	1
06958	Manganese	7439-96-5	180	0.0373	0.518	1
10145	Phosphorus	7723-14-0	279	0.362	10.4	1
01662	Potassium	7440-09-7	1,640	11.7	51.8	1
01667	Sodium	7440-23-5	117	6.16	104	1
07968	Strontium	7440-24-6	142	0.0259	0.518	1
06969	Tin	7440-31-5	1.50 J	0.331	10.4	1
06970	Titanium	7440-32-6	674	0.0743	1.05	1
10146	Zirconium	7440-67-7	2.00 J	0.476	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.140 J	0.0766	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.87	0.0829	0.414	2
06126	Barium	7440-39-3	88.6	0.110	0.414	2
06127	Beryllium	7440-41-7	0.418	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.225	0.0456	0.104	2
06131	Chromium	7440-47-3	23.8	0.124	0.414	2
06132	Cobalt	7440-48-4	6.87	0.0207	0.104	2
06133	Copper	7440-50-8	12.6	0.0829	0.414	2
06135	Lead	7439-92-1	10.9	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.277	0.0518	0.104	2
06139	Nickel	7440-02-0	13.2	0.104	0.414	2
06141	Selenium	7782-49-2	0.213 J	0.0601	0.414	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.104	2
06145	Thallium	7440-28-0	0.176	0.0311	0.104	2
06148	Vanadium	7440-62-2	38.5	0.0228	0.104	2
06149	Zinc	7440-66-6	34.9	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0161 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	2.2	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry			SW-846 9045C modified	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.31	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:28	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 21:08	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 04:54	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:24	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:37	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:08	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:33	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/10/2011 09:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:27	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:52	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:28	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 7

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.41	J 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.7	J 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	5.3	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.0	J 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	27	6.2	18	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	18	1
10138	Chrysene	218-01-9	0.89	J 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	18	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.2	18	1
10138	Fluoranthene	206-44-0	1.3	J 0.68	1.7	1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.93	J 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	18	1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7	1
10138	Pyrene	129-00-0	0.80	J 0.68	1.7	1

The following compounds were detected in the method blank at the respective concentrations of:

bis(2-ethylhexyl)phthalate 7.6 ug/kg

indeno(1,2,3-cd)pyrene 1.1 ug/kg

benzo(g,h,i)perylene 1.5 ug/kg

These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.3
10401	2,4-DB	94-82-6	1.4	J 0.64	1.7
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	Dinoseb	88-85-7	0.82 U	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82 U	0.82	1.7	1
10401	MCPA	94-74-6	380	78	260	1
10401	MCPP (Mecoprop)	93-65-2	77 U	77	260	1
10401	2,4,5-T	93-76-5	0.10 U	0.10	0.17	1
10401	2,4,5-TP	93-72-1	0.26	0.077	0.17	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPA and 2,4,5-TP were not detected in the reextract.

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.060 J	0.035	0.17	1
01363	Chlordane	57-74-9	2.7 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	1.1	0.068	0.35	1
01363	p,p-DDT	50-29-3	1.9	0.068	0.35	1
01363	Delta BHC	319-86-8	0.14 U	0.14	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.25 U	0.25	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.27 U	0.27	0.35	1
01363	Toxaphene	8001-35-2	4.3 U	4.3	6.8	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.5 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	1.5 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	1.6 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	15,200	5.99	19.8	1
07914	Boron	7440-42-8	7.63	0.356	4.95	1
01650	Calcium	7440-70-2	35,400	2.48	19.8	1
01654	Iron	7439-89-6	21,500	2.58	19.8	1
01656	Lithium	7439-93-2	25.1	0.61	2.0	1
01657	Magnesium	7439-95-4	5,380	0.436	9.90	1
06958	Manganese	7439-96-5	328	0.0356	0.495	1
10145	Phosphorus	7723-14-0	469	0.347	9.90	1
01662	Potassium	7440-09-7	3,850	11.2	49.5	1
01667	Sodium	7440-23-5	72.2 J	5.89	99.0	1
07968	Strontium	7440-24-6	37.8	0.0248	0.495	1
06969	Tin	7440-31-5	2.24 J	0.317	9.90	1
06970	Titanium	7440-32-6	1,100	0.0717	1.01	1
10146	Zirconium	7440-67-7	1.71 J	0.456	4.95	1
SW-846 6020 mg/kg mg/kg mg/kg						
06124	Antimony	7440-36-0	0.149 J	0.0762	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.58	0.0824	0.412	2
06126	Barium	7440-39-3	108	0.109	0.412	2
06127	Beryllium	7440-41-7	0.690	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.235	0.0453	0.103	2
06131	Chromium	7440-47-3	25.8	0.124	0.412	2
06132	Cobalt	7440-48-4	8.91	0.0206	0.103	2
06133	Copper	7440-50-8	14.3	0.0816	0.408	2
06135	Lead	7439-92-1	13.9	0.0105	0.206	2
06138	Molybdenum	7439-98-7	2.03	0.0515	0.103	2
06139	Nickel	7440-02-0	17.5	0.103	0.412	2
06141	Selenium	7782-49-2	0.221 J	0.0597	0.412	2
06142	Silver	7440-22-4	0.0298 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.351	0.0309	0.103	2
06148	Vanadium	7440-62-2	49.8	0.0227	0.103	2
06149	Zinc	7440-66-6	82.8	0.577	3.09	2
SW-846 7471A mg/kg mg/kg mg/kg						
00159	Mercury	7439-97-6	0.0194 J	0.0070	0.100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	30.9	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.00	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	2.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:54	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 21:39	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 05:21	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:36	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:55	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:37	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:30	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 15:15	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.78	J 0.35	1.7	1
10138	Anthracene	120-12-7	0.42	J 0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	4.0	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	3.3	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	16	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.4	J 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	47	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	2.7	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	1.1	J 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	18	J 6.2	19	1
10138	Fluoranthene	206-44-0	4.6	0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19	1
10138	Phenanthrene	85-01-8	1.6	J 0.69	1.7	1
10138	Pyrene	129-00-0	2.8	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.						
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.2	U 1.2	3.7	1
10401	Dalapon	75-99-0	4.6	U 4.6	9.4	1
10401	2,4-DB	94-82-6	0.94	J 0.65	1.8	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 7

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	79 U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.21	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4,5-TP was not detected in the reextract.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	2.4 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.20 U	0.20	0.35	1
01363	p,p-DDE	72-55-9	1.1	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.80	0.069	0.35	1
01363	Delta BHC	319-86-8	0.054 J	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.22 U	0.22	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.098 U	0.098	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	1.4 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	2.0	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,300	6.32	20.9	1
07914	Boron	7440-42-8	12.2	0.376	5.22	1
01650	Calcium	7440-70-2	68,000	13.0	104	5
01654	Iron	7439-89-6	24,200	2.72	20.9	1
01656	Lithium	7439-93-2	23.9	0.65	2.1	1
01657	Magnesium	7439-95-4	6,800	0.459	10.4	1
06958	Manganese	7439-96-5	402	0.0376	0.522	1
10145	Phosphorus	7723-14-0	615	0.365	10.4	1
01662	Potassium	7440-09-7	4,610	11.8	52.2	1
01667	Sodium	7440-23-5	94.3 J	6.21	104	1
07968	Strontium	7440-24-6	73.1	0.0261	0.522	1
06969	Tin	7440-31-5	2.20 J	0.334	10.4	1
06970	Titanium	7440-32-6	1,050	0.0741	1.04	1
10146	Zirconium	7440-67-7	2.13 J	0.480	5.22	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.146 J	0.0736	0.199	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.92	0.0795	0.398	2
06126	Barium	7440-39-3	115	0.105	0.398	2
06127	Beryllium	7440-41-7	0.748	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.324	0.0437	0.0994	2
06131	Chromium	7440-47-3	32.3	0.119	0.398	2
06132	Cobalt	7440-48-4	9.79	0.0199	0.0994	2
06133	Copper	7440-50-8	19.2	0.0795	0.398	2
06135	Lead	7439-92-1	14.9	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.531	0.0497	0.0994	2
06139	Nickel	7440-02-0	21.1	0.0994	0.398	2
06141	Selenium	7782-49-2	0.315 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0323 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.367	0.0298	0.0994	2
06148	Vanadium	7440-62-2	51.4	0.0219	0.0994	2
06149	Zinc	7440-66-6	72.3	0.557	2.98	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0138 J	0.0068	0.0965	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.0	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.40 J	0.21	1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.87	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 06:19	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 22:11	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 05:49	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:38	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 23:33	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:33	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:42	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:54	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:54	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:54	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:41	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 15:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:57	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.4 J	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	8.6 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatile analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.						
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	1.8 J	0.64	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	200 U	200	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.15 U	0.15	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.14 U	0.14	0.36	1
01363	p,p-DDE	72-55-9	0.57	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.29 J	0.069	0.36	1
01363	Delta BHC	319-86-8	0.20	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.069 U	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.36	1
01363	Toxaphene	8001-35-2	2.7 U	2.7	6.9	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.55 J	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,000	6.14	20.3	1
07914	Boron	7440-42-8	10.9	0.366	5.08	1
01650	Calcium	7440-70-2	96,600	12.7	102	5
01654	Iron	7439-89-6	23,400	2.65	20.3	1
01656	Lithium	7439-93-2	22.6	0.63	2.0	1
01657	Magnesium	7439-95-4	6,720	0.447	10.2	1
06958	Manganese	7439-96-5	451	0.0366	0.508	1
10145	Phosphorus	7723-14-0	578	0.355	10.2	1
01662	Potassium	7440-09-7	4,370	11.5	50.8	1
01667	Sodium	7440-23-5	115	6.04	102	1
07968	Strontium	7440-24-6	101	0.0254	0.508	1
06969	Tin	7440-31-5	1.91 J	0.325	10.2	1
06970	Titanium	7440-32-6	1,070	0.0728	1.03	1
10146	Zirconium	7440-67-7	2.65 J	0.467	5.08	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.122 J	0.0759	0.205	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.44	0.0820	0.410	2
06126	Barium	7440-39-3	105	0.109	0.410	2
06127	Beryllium	7440-41-7	0.710	0.0164	0.103	2
06128	Cadmium	7440-43-9	0.338	0.0451	0.103	2
06131	Chromium	7440-47-3	31.3	0.123	0.410	2
06132	Cobalt	7440-48-4	9.63	0.0205	0.103	2
06133	Copper	7440-50-8	18.0	0.0820	0.410	2
06135	Lead	7439-92-1	11.3	0.0105	0.205	2
06138	Molybdenum	7439-98-7	0.491	0.0513	0.103	2
06139	Nickel	7440-02-0	19.2	0.103	0.410	2
06141	Selenium	7782-49-2	0.291 J	0.0595	0.410	2
06142	Silver	7440-22-4	0.0292 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.356	0.0308	0.103	2
06148	Vanadium	7440-62-2	53.2	0.0226	0.103	2
06149	Zinc	7440-66-6	63.8	0.574	3.08	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.74	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 06:44	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 22:43	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 06:16	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:53	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 23:52	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:37	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:46	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:33	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:04	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	0.65 U	0.65	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.84 U	0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84 U	0.84	1.8	1
10401	MCPA	94-74-6	210 U	210	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.086 U	0.086	0.18	1
10401	2,4,5-TP	93-72-1	0.20 U	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method.

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4,5-TP was not detected in the reextract. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	2.9 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.36	1
01363	p,p-DDE	72-55-9	0.62	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.94	0.069	0.36	1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.069 U	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.18 U	0.18	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.36	1
01363	Toxaphene	8001-35-2	2.9 U	2.9	6.9	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The TCX surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,800	6.33	20.9	1
07914	Boron	7440-42-8	11.2	0.377	5.23	1
01650	Calcium	7440-70-2	109,000	13.1	105	5
01654	Iron	7439-89-6	25,200	2.73	20.9	1
01656	Lithium	7439-93-2	25.5	0.65	2.1	1
01657	Magnesium	7439-95-4	6,680	0.460	10.5	1
06958	Manganese	7439-96-5	330	0.0377	0.523	1
10145	Phosphorus	7723-14-0	500	0.366	10.5	1
01662	Potassium	7440-09-7	4,220	11.8	52.3	1
01667	Sodium	7440-23-5	104 J	6.22	105	1
07968	Strontium	7440-24-6	106	0.0262	0.523	1
06969	Tin	7440-31-5	2.06 J	0.335	10.5	1
06970	Titanium	7440-32-6	980	0.0721	1.02	1
10146	Zirconium	7440-67-7	3.31 J	0.481	5.23	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.113 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.35	0.0829	0.414	2
06126	Barium	7440-39-3	98.8	0.110	0.414	2
06127	Beryllium	7440-41-7	0.684	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.263	0.0456	0.104	2
06131	Chromium	7440-47-3	34.8	0.124	0.414	2
06132	Cobalt	7440-48-4	9.74	0.0207	0.104	2
06133	Copper	7440-50-8	18.4	0.0829	0.414	2
06135	Lead	7439-92-1	16.7	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.324	0.0518	0.104	2
06139	Nickel	7440-02-0	18.9	0.104	0.414	2
06141	Selenium	7782-49-2	0.631	0.0601	0.414	2
06142	Silver	7440-22-4	0.0209 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.330	0.0311	0.104	2
06148	Vanadium	7440-62-2	59.0	0.0228	0.104	2
06149	Zinc	7440-66-6	64.6	0.580	3.11	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0193 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.99 J	0.84	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.60	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:09	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 23:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 06:43	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:07	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 00:11	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:40	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:51	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 16:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69	U 0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	16	J 6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1	J 6.2	19	1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19	1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7	1
10138	Pyrene	129-00-0	0.69	U 0.69	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.3
10401	2,4-DB	94-82-6	1.9	U 0.64	1.8
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.8
10401	MCPA	94-74-6	180	U 180	260
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260
10401	2,4,5-T	93-76-5	0.33	U 0.33	0.33
10401	2,4,5-TP	93-72-1	0.23	U 0.23	0.23

The LCS data is outside the QC limits for various compounds. Results from the

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4-DB was not detected in the reextract. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.6 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.18 U	0.18	0.35	1
01363	p,p-DDE	72-55-9	0.53	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.43 U	0.43	0.43	1
01363	Delta BHC	319-86-8	0.055 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.34 U	0.34	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.12 U	0.12	0.35	1
01363	Toxaphene	8001-35-2	7.8 U	7.8	7.8	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.54 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,400	6.18	20.4	1
07914	Boron	7440-42-8	10.4	0.368	5.11	1
01650	Calcium	7440-70-2	134,000	12.8	102	5
01654	Iron	7439-89-6	21,300	2.67	20.4	1
01656	Lithium	7439-93-2	18.9	0.63	2.0	1
01657	Magnesium	7439-95-4	6,510	0.450	10.2	1
06958	Manganese	7439-96-5	268	0.0368	0.511	1
10145	Phosphorus	7723-14-0	455	0.358	10.2	1
01662	Potassium	7440-09-7	3,360	11.5	51.1	1
01667	Sodium	7440-23-5	116	6.08	102	1
07968	Strontium	7440-24-6	151	0.0255	0.511	1
06969	Tin	7440-31-5	1.99 J	0.327	10.2	1
06970	Titanium	7440-32-6	834	0.0733	1.03	1
10146	Zirconium	7440-67-7	3.54 J	0.470	5.11	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.253	0.0756	0.204	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.86	0.0817	0.409	2
06126	Barium	7440-39-3	108	0.108	0.409	2
06127	Beryllium	7440-41-7	0.749	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.343	0.0450	0.102	2
06131	Chromium	7440-47-3	32.6	0.123	0.409	2
06132	Cobalt	7440-48-4	10.2	0.0204	0.102	2
06133	Copper	7440-50-8	22.9	0.0817	0.409	2
06135	Lead	7439-92-1	22.9	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.440	0.0511	0.102	2
06139	Nickel	7440-02-0	19.8	0.102	0.409	2
06141	Selenium	7782-49-2	0.284 J	0.0593	0.409	2
06142	Silver	7440-22-4	0.0184 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.303	0.0307	0.102	2
06148	Vanadium	7440-62-2	61.4	0.0225	0.102	2
06149	Zinc	7440-66-6	64.6	0.572	3.07	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0137 J	0.0070	0.0991	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.49 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.47	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:34	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 23:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 07:11	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:22	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 00:29	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:44	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:55	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 16:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:33	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	2.0 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,600	6.52	21.6	1
07914	Boron	7440-42-8	2.58 J	0.388	5.39	1
01650	Calcium	7440-70-2	2,110	2.69	21.6	1
01654	Iron	7439-89-6	19,500	2.81	21.6	1
01656	Lithium	7439-93-2	24.3	0.67	2.2	1
01657	Magnesium	7439-95-4	3,780	0.474	10.8	1
06958	Manganese	7439-96-5	282	0.0388	0.539	1
10145	Phosphorus	7723-14-0	282	0.377	10.8	1
01662	Potassium	7440-09-7	4,020	12.2	53.9	1
01667	Sodium	7440-23-5	85.6 J	6.41	108	1
07968	Strontium	7440-24-6	19.5	0.0269	0.539	1
06969	Tin	7440-31-5	2.45 J	0.345	10.8	1
06970	Titanium	7440-32-6	1,250	0.0736	1.04	1
10146	Zirconium	7440-67-7	1.76 J	0.496	5.39	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0855 J	0.0782	0.211	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.03	0.0845	0.423	2
06126	Barium	7440-39-3	134	0.112	0.423	2
06127	Beryllium	7440-41-7	0.667	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.164	0.0465	0.106	2
06131	Chromium	7440-47-3	16.8	0.127	0.423	2
06132	Cobalt	7440-48-4	6.53	0.0211	0.106	2
06133	Copper	7440-50-8	9.64	0.0862	0.431	2
06135	Lead	7439-92-1	6.61	0.0108	0.211	2
06138	Molybdenum	7439-98-7	0.878	0.0528	0.106	2
06139	Nickel	7440-02-0	12.2	0.106	0.423	2
06141	Selenium	7782-49-2	0.0991 J	0.0613	0.423	2
06142	Silver	7440-22-4	0.0360 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.357	0.0317	0.106	2
06148	Vanadium	7440-62-2	34.5	0.0232	0.106	2
06149	Zinc	7440-66-6	69.6	0.592	3.17	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	ug/kg	ug/kg	1
				ug/kg	ug/kg	
				ug/kg	ug/kg	
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	mg/kg	mg/kg	1
				mg/kg	mg/kg	
				mg/kg	mg/kg	
SW-846 9045C modified						
			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.99	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.2	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:59	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 00:18	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 01:07	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:00	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:07	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:36	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 16:30	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 18:42	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.7	1
10138	Acenaphthylene	208-96-8	0.58 J	0.35	1.7	1
10138	Anthracene	120-12-7	0.83 J	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	2.9	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	3.4	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.3 J	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	2.5	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.7	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.9 J	6.3	19	1
10138	Fluoranthene	206-44-0	8.3	0.70	1.7	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 J	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.7	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	4.6	0.70	1.7	1
10138	Pyrene	129-00-0	5.3	0.70	1.7	1
The following compounds were detected in the method blank at the respective concentrations of: bis(2-ethylhexyl)phthalate 7.6 ug/kg indeno(1,2,3-cd)pyrene 1.1 ug/kg These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. These compounds were not detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	9,250	6.20	20.5	1
07914	Boron	7440-42-8	1.20 J	0.369	5.13	1
01650	Calcium	7440-70-2	4,850	2.56	20.5	1
01654	Iron	7439-89-6	16,600	2.68	20.5	1
01656	Lithium	7439-93-2	27.5	0.64	2.1	1
01657	Magnesium	7439-95-4	4,000	0.451	10.3	1
06958	Manganese	7439-96-5	248	0.0369	0.513	1
10145	Phosphorus	7723-14-0	308	0.359	10.3	1
01662	Potassium	7440-09-7	2,940	11.6	51.3	1
01667	Sodium	7440-23-5	81.2 J	6.10	103	1
07968	Strontium	7440-24-6	13.2	0.0256	0.513	1
06969	Tin	7440-31-5	2.26 J	0.328	10.3	1
06970	Titanium	7440-32-6	1,080	0.0735	1.04	1
10146	Zirconium	7440-67-7	0.573 J	0.472	5.13	1
SW-846 6020 mg/kg mg/kg mg/kg						
06124	Antimony	7440-36-0	0.0860 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.12	0.0829	0.414	2
06126	Barium	7440-39-3	90.8	0.110	0.414	2
06127	Beryllium	7440-41-7	0.407	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.0757 J	0.0456	0.104	2
06131	Chromium	7440-47-3	13.2	0.124	0.414	2
06132	Cobalt	7440-48-4	4.99	0.0207	0.104	2
06133	Copper	7440-50-8	5.08	0.0812	0.406	2
06135	Lead	7439-92-1	3.75	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.289	0.0518	0.104	2
06139	Nickel	7440-02-0	8.73	0.104	0.414	2
06141	Selenium	7782-49-2	0.0601 U	0.0601	0.414	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.104	2
06145	Thallium	7440-28-0	0.271	0.0311	0.104	2
06148	Vanadium	7440-62-2	28.6	0.0228	0.104	2
06149	Zinc	7440-66-6	60.3	0.580	3.11	2
SW-846 7471A mg/kg mg/kg mg/kg						

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0071 U	mg/kg 0.0071	mg/kg 0.101	1
Wet Chemistry						
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 1.0 J	mg/kg 0.84	mg/kg 1.0	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 9.4 U	ug/kg 9.4	ug/kg 31.4	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.21 U	mg/kg 0.21	mg/kg 1.0	1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.63	0.0100	0.0100	1
Wet Chemistry						
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 4.4	% 0.50	% 0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 08:24	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 00:50	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 02:41	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 5

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:04	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:16	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 17:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 17:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 17:02	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.						
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	25.61
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530	1
10501	Isopropanol	67-63-0	110 U	110	530	1
10501	Methanol	67-56-1	110 U	110	530	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11	1
GC Petroleum Hydrocarbons						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum Hydrocarbons						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	1.4	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	2.0	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	4.2	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,800	6.16	20.4	1
07914	Boron	7440-42-8	1.87 J	0.366	5.09	1
01650	Calcium	7440-70-2	1,670	2.54	20.4	1
01654	Iron	7439-89-6	16,200	2.66	20.4	1
01656	Lithium	7439-93-2	21.9	0.63	2.0	1
01657	Magnesium	7439-95-4	3,280	0.448	10.2	1
06958	Manganese	7439-96-5	191	0.0366	0.509	1
10145	Phosphorus	7723-14-0	210	0.356	10.2	1
01662	Potassium	7440-09-7	2,650	11.5	50.9	1
01667	Sodium	7440-23-5	108	6.05	102	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 7

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
SW-846 6010B			mg/kg	mg/kg	mg/kg	
07968	Strontium	7440-24-6	11.4	0.0254	0.509	1
06969	Tin	7440-31-5	2.38 J	0.326	10.2	1
06970	Titanium	7440-32-6	1,080	0.0737	1.04	1
10146	Zirconium	7440-67-7	0.838 J	0.468	5.09	1
SW-846 6020			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0768 U	0.0768	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.16	0.0830	0.415	2
06126	Barium	7440-39-3	102	0.110	0.415	2
06127	Beryllium	7440-41-7	0.735	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.0806 J	0.0456	0.104	2
06131	Chromium	7440-47-3	15.9	0.124	0.415	2
06132	Cobalt	7440-48-4	5.11	0.0207	0.104	2
06133	Copper	7440-50-8	5.45	0.0847	0.423	2
06135	Lead	7439-92-1	6.03	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.627	0.0519	0.104	2
06139	Nickel	7440-02-0	10.3	0.104	0.415	2
06141	Selenium	7782-49-2	0.176 J	0.0602	0.415	2
06142	Silver	7440-22-4	0.0351 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.323	0.0311	0.104	2
06148	Vanadium	7440-62-2	31.4	0.0228	0.104	2
06149	Zinc	7440-66-6	61.4	0.581	3.11	2
SW-846 7471A			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
EPA 300.0			mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.1	0.86	1.1	1
EPA 314.0			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.7	1
SW-846 7199			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
SW-846 9012B			mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	1
SW-846 9045C modified			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.92	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified			%	%	%	

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-177-SA7-SB-3.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 08:49	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 01:22	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 19:58	Laura M Krieger	25.61
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127325703	09/30/2011 13:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127325703	09/30/2011 13:08	Larry E Bevins	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 02:59	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 23:18	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:56	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 13:52	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 20:06	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	2	112730032A	10/03/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 17:43	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 19:06	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 17:16	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11278102201B	10/05/2011 20:40	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11278102201B	10/05/2011 15:45	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-092911 Water
SSFL Area IV Collocated Soil Sampling
TB-092911

LLI Sample # WW 6423872
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5813 SDG#: DE258-13TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11279A20A	10/07/2011 13:14	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279A20A	10/07/2011 13:14	Marie D John	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11284SLA026 Sample number(s): 6423855-6423858, 6423862-6423871									
Acenaphthene	17	U	17.	170 ug/kg	95		76-111		
Acenaphthylene	17	U	17.	170 ug/kg	99		75-122		
Aniline	170		170.	500 ug/kg	67		20-115		
	U								
Anthracene	17	U	17.	170 ug/kg	103		76-112		
Benzidine	1,200		1,200.	3,300 ug/kg	33		15-121		
	U								
Benzo(a)anthracene	17	U	17.	170 ug/kg	106		73-112		
Benzo(a)pyrene	17	U	17.	170 ug/kg	108		65-124		
Benzo(b)fluoranthene	17	U	17.	170 ug/kg	101		61-127		
Benzo(g,h,i)perylene	17	U	17.	170 ug/kg	102		60-125		
Benzo(k)fluoranthene	17	U	17.	170 ug/kg	108		67-125		
Benzoic acid	170		170.	500 ug/kg	47*		62-113		
	U								
Benzyl alcohol	170		170.	500 ug/kg	90		68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170 ug/kg	117*		73-114		
Butylbenzylphthalate	17	U	17.	170 ug/kg	92		75-115		
Di-n-butylphthalate	17	U	17.	170 ug/kg	101		79-112		
Carbazole	17	U	17.	170 ug/kg	99		77-113		
4-Chloro-3-methylphenol	33	U	33.	170 ug/kg	93		74-119		
4-Chloroaniline	67	U	67.	170 ug/kg	42		10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170 ug/kg	97		70-118		
bis(2-Chloroethyl)ether	17	U	17.	170 ug/kg	97		70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170 ug/kg	82		62-115		
2-Chloronaphthalene	17	U	17.	170 ug/kg	88		49-128		
2-Chlorophenol	17	U	17.	170 ug/kg	94		72-112		
4-Chlorophenyl-phenylether	33	U	33.	170 ug/kg	100		74-115		
Chrysene	17	U	17.	170 ug/kg	110		76-113		
Dibenz(a,h)anthracene	17	U	17.	170 ug/kg	106		61-126		
Dibenzofuran	17	U	17.	170 ug/kg	94		74-116		
1,2-Dichlorobenzene	17	U	17.	170 ug/kg	88		74-99		
1,3-Dichlorobenzene	17	U	17.	170 ug/kg	87		70-98		
1,4-Dichlorobenzene	17	U	17.	170 ug/kg	87		74-106		
3,3'-Dichlorobenzidine	100		100.	330 ug/kg	45		10-116		
	U								
2,4-Dichlorophenol	17	U	17.	170 ug/kg	102		75-111		
Diethylphthalate	17	U	17.	170 ug/kg	97		76-111		
2,4-Dimethylphenol	33	U	33.	170 ug/kg	96		72-111		
3,5-Dimethylphenol	33	U	33.	170 ug/kg	99		83-120		
Dimethylphthalate	17	U	17.	170 ug/kg	100		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500 ug/kg	40*		46-120		
	U								
2,4-Dinitrophenol	330		330.	1,000 ug/kg	22		18-133		
	U								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	106		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	105		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	94		75-117		
Fluoranthene	17 U	17.	170	ug/kg	110		78-116		
Fluorene	17 U	17.	170	ug/kg	98		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	120*		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	107		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	97		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	93		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	106		64-119		
Isophorone	17 U	17.	170	ug/kg	94		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	91		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	93		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	95		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	96		66-117		
Naphthalene	17 U	17.	170	ug/kg	89		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	85		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	89		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	63		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	78		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	85		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	89		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	86		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	105		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	91		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	79		51-117		
Phenanthrene	17 U	17.	170	ug/kg	102		77-113		
Phenol	17 U	17.	170	ug/kg	97		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	97		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	105		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	109		78-111		
Batch number: 11284SLB026	Sample number(s): 6423855-6423858, 6423862-6423871								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	88		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	85		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	95		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	94		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	104		63-143		
Benzo(g,h,i)perylene	1.5 J	0.67	1.7	ug/kg	96		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	92		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	106		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	93		73-114		
Dibenz(a,h)anthracene	1.4 J	0.67	1.7	ug/kg	98		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	102		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	94		79-121		
Bis(2-Ethylhexyl)phthalate	7.6 J	6.0	18	ug/kg	116		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	98		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	94		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCS D Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	1.1 J	0.67	1.7	ug/kg	98		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	85		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	86		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	109		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	89		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		72-119		
Batch number: 11274A34A	Sample number(s): 6423871								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	71		67-119		
Batch number: 11279A20A	Sample number(s): 6423872								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	100	100	75-135	0	30
Batch number: 112810010A	Sample number(s): 6423855-6423858, 6423860, 6423862-6423868								
2,4-D	1.2 U	1.2	3.6	ug/kg	77		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	37		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	81		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	51*		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	9*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	95		62-170		
MCPA	76 U	76.	250	ug/kg	53*		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	47*		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	89		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	63*		68-114		
Batch number: 112910026A	Sample number(s): 6423861								
2,4-D	1.2 U	1.2	3.6	ug/kg	90		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	23		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	87		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	98		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	92		62-170		
MCPA	76 U	76.	250	ug/kg	62		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	55		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	90		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	82		68-114		
Batch number: 112810037A	Sample number(s): 6423855-6423858, 6423860-6423868								
Aldrin	0.066 U	0.066	0.17	ug/kg	82		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	74		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	94		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	79		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	125		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	118		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	100		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	97		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	94		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	62		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	92		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	105		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	94		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	91		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	98		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	79		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	91		65-131		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methoxychlor	0.34 U	0.34	1.7	ug/kg	119		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 112840021A	Sample number(s): 6423855-6423858, 6423860-6423871								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg	65	66	36-106	1	30
Aroclor 5442	1.0 U	1.0	3.3	ug/kg					
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	72		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	82		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112730032A	Sample number(s): 6423871								
Ethanol	100 U	100.	500	ug/kg	99		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	98		68-129		
Batch number: 112790048A	Sample number(s): 6423871								
Diethylene glycol	5.0 U	5.0	10	mg/kg	94		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	96		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	84		67-131		
Batch number: 112790036A	Sample number(s): 6423871								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	106		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	103		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	102		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	87		49-107		
Batch number: 112790037A	Sample number(s): 6423871								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		69-109		
Batch number: 112781026001A	Sample number(s): 6423855-6423859, 6423862-6423871								
Antimony	0.0725 U	0.0725	0.196	mg/kg	76		40-227		
Arsenic	0.0784 U	0.0784	0.392	mg/kg	97		83-111		
Beryllium	0.0157 U	0.0157	0.0980	mg/kg	94		84-112		
Cadmium	0.0431 U	0.0431	0.0980	mg/kg	95		83-111		
Chromium	0.118 U	0.118	0.392	mg/kg	105		77-123		
Cobalt	0.0196 U	0.0196	0.0980	mg/kg	98		85-114		
Copper	0.977 U	0.0784	0.392	mg/kg	102		81-110		
Lead	0.121 J	0.0100	0.196	mg/kg	96		84-112		
Nickel	0.0980 U	0.0980	0.392	mg/kg	99		81-110		
Silver	0.0360 J	0.0139	0.0980	mg/kg	100		83-112		
Thallium	0.0294 U	0.0294	0.0980	mg/kg	96		82-112		
Vanadium	0.0216 U	0.0216	0.0980	mg/kg	97		76-110		
Zinc	0.549 U	0.549	2.94	mg/kg	96		82-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 112781026001B Selenium	0.0569 U	0.0569	0.392	mg/kg	94		79-110		
Batch number: 112781026001C Molybdenum	0.0490 U	0.0490	0.0980	mg/kg	101		80-110		
Batch number: 112781026001D Barium	0.104 U	0.104	0.392	mg/kg	96		83-110		
Batch number: 112785708004 Aluminum	14.0 J	5.99	19.8	mg/kg	105		51-110		
Boron	0.356 U	0.356	4.95	mg/kg	103		83-110		
Calcium	13.0 J	2.48	19.8	mg/kg	103		81-110		
Iron	7.03 J	2.58	19.8	mg/kg	94		57-110		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	5.37 J	0.436	9.90	mg/kg	103		68-110		
Manganese	0.0762 J	0.0356	0.495	mg/kg	99		85-116		
Phosphorus	1.34 J	0.347	9.90	mg/kg	106		80-120		
Potassium	11.2 U	11.2	49.5	mg/kg	102		71-110		
Sodium	5.89 U	5.89	99.0	mg/kg	98		76-110		
Strontium	0.0535 J	0.0248	0.495	mg/kg	99		84-110		
Tin	1.32 J	0.317	9.90	mg/kg	96		86-120		
Zirconium	0.455 U	0.455	4.95	mg/kg	107		80-120		
Batch number: 112785711002 Mercury	0.0067 U	0.0067	0.0946	mg/kg	95		83-119		
Batch number: 112801026001A Copper	0.0769 U	0.0769	0.385	mg/kg	92		81-110		
Batch number: 112865708002 Titanium	0.0860 J	0.0710	1.00	mg/kg	97		80-120		
Batch number: 11278102201B 16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	99		80-120		
Batch number: 11283243201A 3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	89		80-120		
Batch number: 11285285202A 7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	93		85-115		
Batch number: 11285285202B 7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	93		85-115		
Batch number: 11285495201A 11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	100		90-110		
Batch number: 11285495201B 11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	100		90-110		
Batch number: 11285039402A 17a pH by 9045C					100		95-105		
Batch number: 11285039402B 17a pH by 9045C					100		95-105		
Batch number: 11278162403B									

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11284SLA026	Sample number(s): 6423855-6423858, 6423862-6423871 UNSPK: 6423856								
Acenaphthene	96	87	75-115	10	30				
Acenaphthylene	100	90	81-110	10	30				
Aniline	79	56	18-116	34*	30				
Anthracene	106	92	75-115	14	30				
Benzidine	38	0*	35-141	200*	30				
Benzo(a)anthracene	106	92	65-122	14	30				
Benzo(a)pyrene	110	96	57-126	13	30				
Benzo(b)fluoranthene	108	95	59-125	12	30				
Benzo(g,h,i)perylene	106	98	59-127	8	30				
Benzo(k)fluoranthene	109	91	56-132	18	30				
Benzoic acid	13	12	10-173	11	30				
Benzyl alcohol	92	107	67-115	15	30				
4-Bromophenyl-phenylether	120	107	67-129	11	30				
Butylbenzylphthalate	98	90	73-134	9	30				
Di-n-butylphthalate	103	92	67-123	11	30				
Carbazole	101	86	64-120	16	30				
4-Chloro-3-methylphenol	96	84	62-122	14	30				
4-Chloroaniline	66	32	13-107	69*	30				
bis(2-Chloroethoxy)methane	98	92	75-104	6	30				
bis(2-Chloroethyl)ether	100	91	60-116	10	30				
bis(2-Chloroisopropyl)ether	82	78	55-142	5	30				
2-Chloronaphthalene	88	81	50-141	8	30				
2-Chlorophenol	98	90	73-121	8	30				
4-Chlorophenyl-phenylether	101	89	80-109	12	30				
Chrysene	109	93	62-128	16	30				
Dibenz(a,h)anthracene	110	99	65-125	11	30				
Dibenzofuran	95	85	71-112	12	30				
1,2-Dichlorobenzene	89	83	66-108	7	30				
1,3-Dichlorobenzene	87	82	63-109	6	30				
1,4-Dichlorobenzene	87	80	58-108	8	30				
3,3'-Dichlorobenzidine	62	41	28-109	41*	30				
2,4-Dichlorophenol	104	94	66-123	10	30				
Diethylphthalate	97	86	66-118	12	30				
2,4-Dimethylphenol	100	90	68-118	11	30				
3,5-Dimethylphenol	103	93	71-127	10	30				
Dimethylphthalate	99	87	64-118	12	30				
4,6-Dinitro-2-methylphenol	33	42	11-126	25	30				
2,4-Dinitrophenol	0*	20	20-143	200*	30				
2,4-Dinitrotoluene	98	86	56-129	14	30				
2,6-Dinitrotoluene	107	94	69-123	13	30				
1,2-Diphenylhydrazine	107	96	71-129	11	30				
bis(2-Ethylhexyl)phthalate	98	92	63-122	7	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Fluoranthene	111	94	73-112	17	30				
Fluorene	98	87	63-121	12	30				
Hexachlorobenzene	123*	110	77-114	11	30				
Hexachlorobutadiene	109	103	62-120	6	30				
Hexachlorocyclopentadiene	116	117	10-153	1	30				
Hexachloroethane	93	89	57-109	4	30				
Indeno(1,2,3-cd)pyrene	109	98	61-126	10	30				
Isophorone	96	89	73-102	8	30				
1-Methylnaphthalene	91	83	64-122	10	30				
2-Methylnaphthalene	94	86	76-114	9	30				
2-Methylphenol	96	89	75-111	8	30				
4-Methylphenol	100	90	59-123	11	30				
Naphthalene	91	84	72-116	8	30				
2-Nitroaniline	87	81	67-125	6	30				
3-Nitroaniline	96	75	59-122	25	30				
4-Nitroaniline	70	58	41-109	18	30				
Nitrobenzene	97	92	57-125	5	30				
2-Nitrophenol	85	87	56-127	1	30				
4-Nitrophenol	87	81	37-129	7	30				
N-Nitroso-di-n-propylamine	90	83	60-116	8	30				
N-Nitrosodimethylamine	91	84	47-116	9	30				
N-Nitrosodiphenylamine	107	96	71-122	11	30				
Di-n-octylphthalate	99	94	56-126	5	30				
Pentachlorophenol	68	89	28-127	27	30				
Phenanthrene	104	90	65-125	14	30				
Phenol	101	91	58-126	10	30				
Pyrene	101	89	74-126	12	30				
1,2,4-Trichlorobenzene	99	93	72-115	6	30				
2,4,5-Trichlorophenol	107	98	58-129	8	30				
2,4,6-Trichlorophenol	112	103	56-134	8	30				

Batch number: 11284SLB026	Sample number(s): 6423855-6423858, 6423862-6423871 UNSPK: 6423856								
Acenaphthene	93	84	63-105	10	30				
Acenaphthylene	93	83	67-114	12	30				
Anthracene	99	87	73-115	13	30				
Benzo(a)anthracene	99	85	59-128	15	30				
Benzo(a)pyrene	98	89	58-142	10	30				
Benzo(b)fluoranthene	106	106	54-163	0	30				
Benzo(g,h,i)perylene	91	55	33-141	49*	30				
Benzo(k)fluoranthene	92	89	57-153	3	30				
Butylbenzylphthalate	134	92	57-173	25	30				
Di-n-butylphthalate	115	114	65-148	0	30				
Chrysene	97	87	67-123	11	30				
Dibenz(a,h)anthracene	101	66	22-133	41*	30				
Diethylphthalate	106	99	70-136	6	30				
Dimethylphthalate	101	91	74-118	11	30				
Bis(2-Ethylhexyl)phthalate	102	124	39-167	16	30				
Fluoranthene	103	93	51-149	10	30				
Fluorene	99	89	66-122	11	30				
Indeno(1,2,3-cd)pyrene	99	65	21-143	41*	30				
1-Methylnaphthalene	90	80	72-123	12	30				
2-Methylnaphthalene	90	79	64-103	14	30				
Naphthalene	92	81	61-102	12	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
N-Nitrosodimethylamine	95	81	48-113	16	30				
Di-n-octylphthalate	117	116	40-192	1	30				
Phenanthrene	96	84	62-122	14	30				
Pyrene	99	86	51-131	15	30				
Batch number: 11274A34A	Sample number(s): 6423871 UNSPK: P421299								
9a TPH by EPA 8015B Gas C5-C12	77	77	39-118	9	30				
Batch number: 112810010A	Sample number(s): 6423855-6423858, 6423860-6423868 UNSPK: 6423856								
2,4-D	75	77	17-180	2	35				
Dalapon	50	41	10-125	19	50				
2,4-DB	78	63	10-201	20	50				
Dicamba	86	84	10-190	1	50				
Dinoseb	8*	36	10-46	124*	35				
2,4-DP (Dichlorprop)	111	115	33-178	4	50				
MCPA	184	209	10-213	14	50				
MCPP (Mecoprop)	39	44	10-184	8	50				
2,4,5-T	70	47	10-156	39*	35				
2,4,5-TP	16*	42	24-141	92*	35				
Batch number: 112910026A	Sample number(s): 6423861 UNSPK: P423856								
2,4-D	78	77	17-180	1	35				
Dalapon	0*	0*	10-125	0	50				
2,4-DB	88	82	10-201	7	50				
Dicamba	55	0*	10-190	200*	50				
Dinoseb	18	11	10-46	43*	35				
2,4-DP (Dichlorprop)	70	73	33-178	4	50				
MCPA	72	77	10-213	7	50				
MCPP (Mecoprop)	55	55	10-184	1	50				
2,4,5-T	34	41	10-156	19	35				
2,4,5-TP	35	55	24-141	45*	35				
Batch number: 112810037A	Sample number(s): 6423855-6423858, 6423860-6423868 UNSPK: 6423856								
Aldrin	55	55	16-126	0	50				
Alpha BHC	53	50	10-129	6	50				
Beta BHC	59	53	14-147	11	50				
Gamma BHC - Lindane	53	53	10-140	0	50				
p,p-DDD	72	69	16-163	4	50				
p,p-DDE	72	63	18-161	7	50				
p,p-DDT	118	110	10-176	7	50				
Delta BHC	67	67	23-140	0	50				
Dieldrin	50	46	19-154	9	50				
Endosulfan I	41	50	16-137	19	50				
Endosulfan II	78	69	28-154	13	50				
Endosulfan Sulfate	0*	51	21-160	200*	50				
Endrin	60	57	11-149	5	50				
Endrin Aldehyde	74	68	10-148	9	35				
Endrin Ketone	57	0*	22-165	200*	50				
Heptachlor	59	56	13-126	5	50				
Heptachlor Epoxide	70	70	13-157	0	50				
Methoxychlor	64	58	32-147	10	50				
Batch number: 112840021A	Sample number(s): 6423855-6423858, 6423860-6423871 UNSPK: 6423856								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
PCB-1016	70	81	29-146	14	50				
PCB-1260	80	93	39-149	15	50				
Batch number: 112730032A	Sample number(s): 6423871 UNSPK: P419519								
Ethanol	88	67	48-130	27*	20				
Isopropanol	84	64	12-149	28*	20				
Methanol	87	68	43-138	24*	20				
Batch number: 112790048A	Sample number(s): 6423871 UNSPK: P430028								
Diethylene glycol	28*	34*	59-109	20	20				
Ethylene glycol	58*	61*	63-107	5	20				
Propylene glycol	61*	63	63-107	2	20				
Batch number: 112790036A	Sample number(s): 6423871 UNSPK: P421299								
EFH (C12-C14)	95	101	49-123	5	20				
EFH (C15-C20)	110	91	49-123	13	20				
EFH (C21-C30)	-50*	35*	49-123	22*	20				
EFH (C30 - C40)	-175	-220	49-123	6	20				
	(2)	(2)							
EFH (C8-C11)	90	87	49-123	5	20				
Batch number: 112790037A	Sample number(s): 6423871 UNSPK: P421299								
m-Terphenyl	91	96	75-125	6	20				
o-Terphenyl	93	99	75-125	6	20				
p-Terphenyl	92	98	75-125	6	20				
Batch number: 112781026001A	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Antimony	27*	37*	75-125	20	20	0.200	0.225	12 (1)	20
Arsenic	191*	210*	75-125	4	20	6.56	8.85	30*	20
Beryllium	112	116	75-125	3	20	0.634	0.768	19	20
Cadmium	112	131*	75-125	13	20	0.290	0.352	19 (1)	20
Chromium	168*	208*	75-125	9	20	28.9	33.9	16	20
Cobalt	110	129*	75-125	15	20	9.28	9.17	1	20
Copper	130*	167*	75-125	11	20	18.2	22.9	23*	20
Lead	121 (2)	255 (2)	75-125	16	20	20.1	23.0	14	20
Nickel	136*	179*	75-125	14	20	16.5	19.8	18	20
Silver	110	127*	75-125	15	20	0.0221 J	0.0170 J	26* (1)	20
Thallium	122	144*	75-125	12	20	0.248	0.303	20 (1)	20
Vanadium	243 (2)	285 (2)	75-125	6	20	49.9	62.8	23*	20
Zinc	145 (2)	181 (2)	75-125	5	20	53.3	64.8	20	20
Batch number: 112781026001B	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Selenium	99	110	75-125	10	20	0.244 J	0.293 J	18 (1)	20
Batch number: 112781026001C	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Molybdenum	116	134*	75-125	15	20	0.311	0.440	34* (1)	20
Batch number: 112781026001D	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Barium	202 (2)	320 (2)	75-125	10	20	90.1	107	18	20
Batch number: 112785708004	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Aluminum	2148	2670	75-125	4	20	17,300	17,700	2	20
	(2)	(2)							

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Boron	103	101	84-115	2	20	10.8	10.6	2 (1)	20
Calcium	2589 (2)	909 (2)	75-125	5	20	140,000	134,000	4	20
Iron	768 (2)	672 (2)	75-125	0	20	20,200	23,800	16	20
Lithium	101	102	82-114	0	20	17.9	17.7	1	20
Magnesium	151 (2)	293 (2)	75-125	4	20	5,900	5,920	0	20
Manganese	221 (2)	113 (2)	75-125	16	20	269	303	12	20
Phosphorus	99 (2)	107 (2)	75-125	1	20	437	445	2	20
Potassium	148*	171*	75-125	5	20	3,030	3,040	1	20
Sodium	99	99	75-125	1	20	117	108	7 (1)	20
Strontium	93	87	75-115	3	20	151	149	1	20
Tin	81	80	80-110	2	20	1.87 J	1.88 J	0 (1)	20
Zirconium	96	96	81-110	1	20	3.29 J	4.05 J	21* (1)	20
Batch number: 112785711002	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Mercury	92	96	65-135	1	20	0.0178 J	0.0126 J	34* (1)	20
Batch number: 112801026001A	Sample number(s): 6423862-6423864, 6423869-6423871 UNSPK: 6423870 BKG: 6423870								
Copper	130*	117	75-125	7	20	4.86	5.10	5	20
Batch number: 112865708002	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Titanium	313 (2)	299 (2)	75-125	2	20	805	816	1	20
Batch number: 11278102201B	Sample number(s): 6423871 UNSPK: P418463 BKG: P418463								
16a Cyanide by 9012B	93		75-125			0.17 U	0.18 U	0 (1)	20
Batch number: 11283243201A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
3a Cr VI by EPA 7199	89		75-125			0.39 J	0.51 J	26* (1)	20
Batch number: 11285285202A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423868 UNSPK: 6423856 BKG: 6423856								
7a Perchlorate EPA 314.0	113		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11285285202B	Sample number(s): 6423869-6423871 UNSPK: 6423870 BKG: 6423870								
7a Perchlorate EPA 314.0	99		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11285495201A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423868 UNSPK: 6423856 BKG: 6423856								
11a Anions by 300.0 - Fluoride	72*		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11285495201B	Sample number(s): 6423869-6423871 UNSPK: 6423869 BKG: 6423869								
11a Anions by 300.0 - Fluoride	64*		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11285039402A	Sample number(s): 6423855-6423856, 6423859, 6423862-6423868 BKG: 6423856								
17a pH by 9045C						7.81	7.82	0	3
Batch number: 11285039402B	Sample number(s): 6423869-6423871 BKG: 6423871								
17a pH by 9045C						7.92	7.92	0	3
Batch number: 11278162403B	Sample number(s): 6423855-6423860, 6423862-6423871 BKG: 6423856								
28a Moisture Content by 160.3						3.3	3.3	0	20
Moisture Content by 160.3						3.3	3.3	0	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Moisture Content by 160.3						3.3	3.3	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11284SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6423855	96	103	131*	97	94	97
6423856	90	99	122	94	94	98
6423857	94	101	128	95	93	96
6423858	88	96	115	90	88	88
6423862	93	101	122	96	93	97
6423863	91	98	124	93	89	97
6423864	99	107	129	99	96	100
6423865	98	106	123	97	92	95
6423866	91	98	127	94	90	95
6423867	91	97	118	92	87	99
6423868	89	98	108	94	91	91
6423869	88	95	119	90	88	96
6423870	94	101	117	94	90	99
6423871	91	101	105	95	92	94
Blank	86	94	114	90	98	103
LCS	94	100	127	93	94	96
MS	94	101	128	95	93	96
MSD	88	96	115	90	88	88
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11284SLB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6423855	109	92	119
6423856	100	87	98
6423857	113	89	109
6423858	104	78	94
6423862	102	87	96
6423863	93	82	103
6423864	110	87	98
6423865	126	83	91
6423866	41	32*	37*
6423867	86	75	82
6423868	100	87	95
6423869	89	77	90
6423870	98	84	92
6423871	99	85	95

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

Blank	92	81	90
LCS	100	81	92
MS	113	89	109
MSD	104	78	94

Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11274A34A
Trifluorotoluene-F

6423871	94
Blank	96
LCS	92
MS	96
MSD	98

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11279A20A
Trifluorotoluene-F

6423872	89
Blank	87
LCS	111
LCSD	113

Limits: 63-135

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 112810010A
2,4-Dichlorophenylacetic acid

6423855	80
6423856	107
6423857	113
6423858	86
6423860	113
6423862	78
6423863	53
6423864	93
6423865	67
6423866	97
6423867	103
6423868	108
Blank	76
LCS	65
MS	113
MSD	86

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A
Batch number: 112810037A
Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

6423855	62	121*
6423856	51	89
6423857	58	71
6423858	54	61
6423860	54	57
6423861	55	58
6423862	60	64
6423863	65	83
6423864	58	69
6423865	59	91
6423866	55	60
6423867	65	73
6423868	54	70
Blank	76	106
LCS	83	111
MS	58	71
MSD	54	61

Limits: 50-130 20-120

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112840021A

Tetrachloro-m-xylene Decachlorobiphenyl

6423855	84	81
6423856	87	91
6423857	73	71
6423858	87	96
6423860	83	93
6423861	70	88
6423862	70	63
6423863	88	95
6423864	68	71
6423865	80	89
6423866	88	91
6423867	45*	51
6423868	60	57
6423869	56	65
6423870	84	92
6423871	90	100
Blank	88	94
LCS	77	86
LCSD	87	105
MS	73	71
MSD	87	96

Limits: 53-139 45-120

Analysis Name: 13a Herbicides by EPA 8151

Batch number: 112910026A

2,4-Dichlorophenylacetic
acid

6423861	67
Blank	64
LCS	74

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

MS 61
MSD 60

Limits: 36-156

Analysis Name: 18a Alcohols by 8015B
Batch number: 112730032A
Acetone

6423871 88
Blank 98
LCS 99
MS 87
MSD 64

Limits: 42-138

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112790036A
Chlorobenzene Orthoterphenyl

6423871	84	90
Blank	84	90
LCS	87	93
MS	90	92
MSD	86	93

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112790037A
n-Triacontane-d62

6423871 63
Blank 68
LCS 67
MS 68
MSD 69

Limits: 19-152

Analysis Name: 19a Glycols by 8015B
Batch number: 112790048A
Tetramethylene glycol

6423871 73
Blank 83
LCS 84
MS 74
MSD 73

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct # 13013 Cp# 1269114

Sample # 0423355-72

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Cetr</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X	MS/MSD sample		
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-SS Sleeves			X	X								MS/MSD sample		
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-SS Sleeve			X	X										
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-SS Sleeve			X	X										
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)														Laboratory:	
<i>[Signature]</i>		09/29/2011 / 1630		<i>[Signature]</i> LT 9/30/11 0930														Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No(s)															
<i>[Signature]</i>				8767 9857 4434; 8767 9858 3520															

acc#13013 Cp#1269114

sample# 6423855-70

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 8010/6020/8271/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7169	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**NDMA EPA 1625C	**Emergencies EPA 8230A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downfall EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-126-SA7-SB-4.0-5.0	9/29/11	1133	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-127-SA7-SB-4.0-5.0	9/29/11	1000	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-177-SA7-SB-3.5	9/29/11	0845	SOIL	NONE	2-Encores										X												
SL-177-SA7-SB-3.0-4.0	9/29/11	0850	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X		X					X	X	X	X				
TB-092911	9/29/11	1430	WATER	NONE	4-40mL vials										X												
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Laboratory: Lancaster Laboratories, Inc.																					
		09/29/2011 / 1630																									
Received by: (Signature)		Date/Time		Airbill No.(s)																							
				8767 9857 4434; 8767 9858 3520																							

Nicole Maljovec

From: Nicole Maljovec
Sent: Friday, September 30, 2011 10:10 PM
To: 'Bloisa, Peggy'
Subject: FW: COC for 9/29/2011- Surface samples are missing "-SS"
Attachments: COC_09_29_11.xlsx

One more and then I'm done. The SS is missing in the sample IDs for the surface samples. We added them in. If the -SS- shouldn't be included, please let me know.

Thanks!

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 8:15 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgess, Todd; Zakowski, Cherie; Hartman, Pamela; Laura Rainey
Subject: COC for 9/29/2011

Subsurface sampling continued in Subarea 7. Surface sampling started in Subarea 8 South today.

See attached COC.

Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

9/30/2011

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 08, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/01/2011

Group Number: 1269321

SDG: DE259

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-008-SA8S-SS-0.0-0.5 Soil	6426110
SL-009-SA8S-SS-0.0-0.5 Soil	6426111
SL-010-SA8S-SS-0.0-0.5 Soil	6426112
SL-011-SA8S-SS-0.0-0.5 Soil	6426113
SL-012-SA8S-SS-0.0-0.5 Soil	6426114
SL-016-SA8S-SS-0.0-0.5 Soil	6426115
SL-017-SA8S-SS-0.0-0.5 Soil	6426116
SL-018-SA8S-SS-0.0-0.5 Soil	6426117
SL-019-SA8S-SS-0.0-0.5 Soil	6426118
SL-020-SA8S-SS-0.0-0.5 Soil	6426119
SL-021-SA8S-SS-0.0-0.5 Soil	6426120
SL-022-SA8S-SS-0.0-0.5 Soil	6426121
SL-023-SA8S-SS-0.0-0.5 Soil	6426122
SL-084-SA7-SB-0.0-1.0 Soil	6426123
SL-113-SA7-SB-0.0-1.0 Soil	6426124
SL-115-SA7-SB-0.5-1.5 Soil	6426125
SL-132-SA7-SB-4.0-5.0 Soil	6426126
SL-132-SA7-SB-8.5-9.5 Soil	6426127
SL-180-SA7-SB-2.0-3.0 Soil	6426128
FB-SA7-SB-093011 Water	6426129
EB-SA7-SB-093011 Water	6426130
TB-092911 Sand	6426131
TB-092911 Water	6426132
TB-092911 Water	6426133

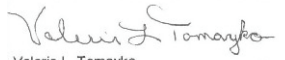
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.48 J	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.0 J	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.5 J	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	2.5	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.80 J	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	7.9	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	11 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	2.7	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	22	6.4	19	1
10138	Fluoranthene	206-44-0	3.3	0.71	1.8	1
10138	Fluorene	86-73-7	0.84 J	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	1.4 J	0.71	1.8	1
10138	Pyrene	129-00-0	2.2	0.71	1.8	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.7 U	4.7	9.6
10401	2,4-DB	94-82-6	1.3 U	1.3	1.8
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8
10401	MCPA	94-74-6	81 U	81	270
10401	MCPP (Mecoprop)	93-65-2	190 J	80	270
10401	2,4,5-T	93-76-5	0.11 U	0.11	0.18
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.040 U	0.040	0.18	1
01363	Chlordane	57-74-9	6.0	0.86	3.6	1
01363	p,p-DDD	72-54-8	0.18 U	0.18	0.36	1
01363	p,p-DDE	72-55-9	8.8	0.71	3.6	10
01363	p,p-DDT	50-29-3	4.9	0.71	3.6	10
01363	Delta BHC	319-86-8	0.54 U	0.54	0.54	1
01363	Dieldrin	60-57-1	0.35 U	0.35	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36	1
01363	Endrin	72-20-8	0.25 U	0.25	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.63 U	0.63	0.63	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.15 U	0.15	0.18	1
01363	Methoxychlor	72-43-5	1.6 U	1.6	1.8	1
01363	Mirex	2385-85-5	0.36 U	0.36	0.36	1
01363	Toxaphene	8001-35-2	17	2.4	7.1	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	3.2 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	3.6	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.4	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals SW-846 6010B						
01643	Aluminum	7429-90-5	23,100	6.48	21.4	1
07914	Boron	7440-42-8	12.2	0.386	5.36	1
01650	Calcium	7440-70-2	84,200	13.4	107	5
01654	Iron	7439-89-6	27,000	2.80	21.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	21.0	0.66	2.1	1
01657	Magnesium	7439-95-4	7,570	0.472	10.7	1
06958	Manganese	7439-96-5	386	0.0386	0.536	1
10145	Phosphorus	7723-14-0	588	0.375	10.7	1
01662	Potassium	7440-09-7	5,660	12.1	53.6	1
01667	Sodium	7440-23-5	108	6.38	107	1
07968	Strontium	7440-24-6	108	0.0268	0.536	1
06969	Tin	7440-31-5	2.28 J	0.343	10.7	1
06970	Titanium	7440-32-6	1,020	0.0761	1.07	1
The Laboratory Control Sample for Titanium recovered at 77%. The Titanium LCS windows are 80-120%. After consultation with the client the data was accepted.						
10146	Zirconium	7440-67-7	4.12 J	0.493	5.36	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.192 J	0.0763	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.55	0.0824	0.412	2
06126	Barium	7440-39-3	96.3	0.109	0.412	2
06127	Beryllium	7440-41-7	0.675	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.295	0.0453	0.103	2
06131	Chromium	7440-47-3	28.9	0.124	0.412	2
06132	Cobalt	7440-48-4	10.6	0.0206	0.103	2
06133	Copper	7440-50-8	21.0	0.0824	0.412	2
06135	Lead	7439-92-1	21.9	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.440	0.0515	0.103	2
06139	Nickel	7440-02-0	19.9	0.103	0.412	2
06141	Selenium	7782-49-2	0.268 J	0.0598	0.412	2
06142	Silver	7440-22-4	0.0303 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.339	0.0309	0.103	2
06148	Vanadium	7440-62-2	52.9	0.0227	0.103	2
06149	Zinc	7440-66-6	70.9	0.577	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0414 J	0.0075	0.107	1
Wet Chemistry						
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.69 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.59	0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 18:45	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 12:15	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 19:33	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 04:08	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 04:53	Melissa McDermott	10
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 18:47	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 04:54	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:03	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426110
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5901 SDG#: DE259-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 07:52	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 07:52	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 07:52	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 07:52	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 11:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 14:10	Elyse P Brunstetter	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.75 J	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.93 J	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	2.6	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 J	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	1.0 J	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	24	6.3	19	1
10138	Fluoranthene	206-44-0	1.7 J	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.92 J	0.70	1.8	1
10138	Pyrene	129-00-0	1.4 J	0.70	1.8	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.5	1
10401	2,4-DB	94-82-6	0.65 U	0.65	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.84 U	0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84 U	0.84	1.8	1
10401	MCPA	94-74-6	320	80	260	1
10401	MCPP (Mecoprop)	93-65-2	110 J	79	260	1
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18	1
10401	2,4,5-TP	93-72-1	0.079 U	0.079	0.18	1

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	2.3 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	0.44	0.070	0.36	1
01363	p,p-DDT	50-29-3	0.69	0.070	0.36	1
01363	Delta BHC	319-86-8	0.040 J	0.038	0.18	1
01363	Dieldrin	60-57-1	0.070 U	0.070	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.15 U	0.15	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.070 U	0.070	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.29 U	0.29	0.36	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.042 U	0.042	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.15 U	0.15	0.36	1
01363	Toxaphene	8001-35-2	4.7 J	4.6	7.0	1

The sample was injected after maintenance and a new calibration.
Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,300	6.26	20.7	1
07914	Boron	7440-42-8	8.16	0.373	5.18	1
01650	Calcium	7440-70-2	122,000	12.9	104	5
01654	Iron	7439-89-6	23,000	2.70	20.7	1
01656	Lithium	7439-93-2	27.1	0.64	2.1	1
01657	Magnesium	7439-95-4	6,950	0.456	10.4	1
06958	Manganese	7439-96-5	372	0.0373	0.518	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
10145	Phosphorus	7723-14-0	424	0.362	10.4	1
01662	Potassium	7440-09-7	3,680	11.7	51.8	1
01667	Sodium	7440-23-5	114	6.16	104	1
07968	Strontium	7440-24-6	121	0.0259	0.518	1
06969	Tin	7440-31-5	1.85 J	0.331	10.4	1
06970	Titanium	7440-32-6	870	0.0735	1.04	1
10146	Zirconium	7440-67-7	3.48 J	0.476	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0766 U	0.0766	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.53	0.0828	0.414	2
06126	Barium	7440-39-3	63.6	0.110	0.414	2
06127	Beryllium	7440-41-7	0.521	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.212	0.0456	0.104	2
06131	Chromium	7440-47-3	25.6	0.124	0.414	2
06132	Cobalt	7440-48-4	5.78	0.0207	0.104	2
06133	Copper	7440-50-8	12.4	0.0828	0.414	2
06135	Lead	7439-92-1	9.34	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.130	0.0518	0.104	2
06139	Nickel	7440-02-0	12.6	0.104	0.414	2
06141	Selenium	7782-49-2	0.167 J	0.0600	0.414	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.104	2
06145	Thallium	7440-28-0	0.224	0.0311	0.104	2
06148	Vanadium	7440-62-2	39.3	0.0228	0.104	2
06149	Zinc	7440-66-6	45.2	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0148 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.62 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.83	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor

Wet Chemistry

EPA 160.3 modified

%

%

%

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 20:00	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 10:39	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 20:55	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 22:30	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 19:43	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 05:27	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 12:09	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:29	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426111
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5902 SDG#: DE259-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:40	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 06:32	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 12:59	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 14:32	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Fluoranthene	206-44-0	19	J 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.37 J	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	1.3 J	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	1.8	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.4	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.2 J	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	10	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	47	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	3.9	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	25	6.4	19	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.97 J	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.95 J	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	2.8	0.71	1.8	1
10138	Pyrene	129-00-0	3.8	0.71	1.8	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.9
10401	Dalapon	75-99-0	4.7 U	4.7	9.6
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8
10401	MCPA	94-74-6	100 U	100	270
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Reporting limits were raised due to interference from the sample matrix.

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	4.2	0.86	3.6	1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.36	1
01363	p,p-DDE	72-55-9	5.4	0.71	3.6	10
01363	p,p-DDT	50-29-3	3.2 J	0.71	3.6	10
01363	Delta BHC	319-86-8	0.52	0.039	0.18	1
01363	Dieldrin	60-57-1	0.093 U	0.093	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.13 U	0.13	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36	1
01363	Endrin	72-20-8	0.071 U	0.071	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.26 U	0.26	0.36	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.18	1
01363	Methoxychlor	72-43-5	0.80 U	0.80	1.8	1
01363	Mirex	2385-85-5	0.20 U	0.20	0.36	1
01363	Toxaphene	8001-35-2	8.1 U	8.1	8.1	1

The sample was injected after maintenance and a new calibration.
Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	5.5	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	5.4	0.35	1.8	1
10225	PCB-1260	11096-82-5	3.3	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,800	6.48	21.4	1
07914	Boron	7440-42-8	12.1	0.386	5.36	1
01650	Calcium	7440-70-2	107,000	13.4	107	5
01654	Iron	7439-89-6	25,400	2.80	21.4	1
01656	Lithium	7439-93-2	21.7	0.66	2.1	1
01657	Magnesium	7439-95-4	7,290	0.472	10.7	1
06958	Manganese	7439-96-5	355	0.0386	0.536	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
10145	Phosphorus	7723-14-0	507	0.375	10.7	1
01662	Potassium	7440-09-7	5,340	12.1	53.6	1
01667	Sodium	7440-23-5	117	6.38	107	1
07968	Strontium	7440-24-6	134	0.0268	0.536	1
06969	Tin	7440-31-5	2.21 J	0.343	10.7	1
06970	Titanium	7440-32-6	971	0.0739	1.04	1
10146	Zirconium	7440-67-7	4.23 J	0.493	5.36	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.134 J	0.0793	0.214	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.85	0.0857	0.429	2
06126	Barium	7440-39-3	76.3	0.114	0.429	2
06127	Beryllium	7440-41-7	0.573	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.310	0.0472	0.107	2
06131	Chromium	7440-47-3	26.5	0.129	0.429	2
06132	Cobalt	7440-48-4	9.15	0.0214	0.107	2
06133	Copper	7440-50-8	17.2	0.0857	0.429	2
06135	Lead	7439-92-1	26.1	0.0109	0.214	2
06138	Molybdenum	7439-98-7	0.302	0.0536	0.107	2
06139	Nickel	7440-02-0	17.5	0.107	0.429	2
06141	Selenium	7782-49-2	0.187 J	0.0622	0.429	2
06142	Silver	7440-22-4	0.0152 U	0.0152	0.107	2
06145	Thallium	7440-28-0	0.225	0.0322	0.107	2
06148	Vanadium	7440-62-2	44.7	0.0236	0.107	2
06149	Zinc	7440-66-6	57.3	0.600	3.22	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0308 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.88	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 20:25	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 12:48	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 21:23	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 23:15	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 23:30	Melissa McDermott	10
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 20:02	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 05:35	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 12:36	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:41	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:13	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426112
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5903 SDG#: DE259-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:13	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:13	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:13	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:41	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 07:09	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 13:45	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 14:46	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5904 SDG#: DE259-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5904 SDG#: DE259-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	1.6 J	0.35	1.8	1
10138	Anthracene	120-12-7	0.56 J	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	13	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	6.2	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	8.6	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.8	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	11	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	210	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	18	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	1.5 J	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	60	6.4	19	1
10138	Fluoranthene	206-44-0	12	0.71	1.8	1
10138	Fluorene	86-73-7	2.0	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.2 J	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.93 J	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	3.4	0.71	1.8	1
10138	Pyrene	129-00-0	11	0.71	1.8	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.8
10401	Dalapon	75-99-0	4.7 U	4.7	9.6
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.85 U	0.85	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8
10401	MCPA	94-74-6	340 U	340	340
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5904 SDG#: DE259-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	4.0	0.85	3.6	1
01363	p,p-DDD	72-54-8	0.14 U	0.14	0.36	1
01363	p,p-DDE	72-55-9	2.8	0.070	0.36	1
01363	p,p-DDT	50-29-3	1.8	0.070	0.36	1
01363	Delta BHC	319-86-8	0.15 U	0.15	0.18	1
01363	Dieldrin	60-57-1	0.24 U	0.24	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.070 U	0.070	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.070 U	0.070	0.36	1
01363	Endrin Aldehyde	7421-93-4	1.2 U	1.2	1.2	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.15 U	0.15	0.18	1
01363	Methoxychlor	72-43-5	0.95 U	0.95	1.8	1
01363	Mirex	2385-85-5	0.22 U	0.22	0.36	1
01363	Toxaphene	8001-35-2	9.4 U	9.4	9.4	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	23,400	6.31	20.9	1
07914	Boron	7440-42-8	10.2	0.375	5.21	1
01650	Calcium	7440-70-2	70,400	13.0	104	5
01654	Iron	7439-89-6	26,500	2.72	20.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5904 SDG#: DE259-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01656	Lithium	7439-93-2	21.3	0.65	2.1	1
01657	Magnesium	7439-95-4	7,330	0.459	10.4	1
06958	Manganese	7439-96-5	356	0.0375	0.521	1
10145	Phosphorus	7723-14-0	620	0.365	10.4	1
01662	Potassium	7440-09-7	5,170	11.8	52.1	1
01667	Sodium	7440-23-5	98.1 J	6.21	104	1
07968	Strontium	7440-24-6	91.5	0.0261	0.521	1
06969	Tin	7440-31-5	2.27 J	0.334	10.4	1
06970	Titanium	7440-32-6	1,080	0.0748	1.05	1
10146	Zirconium	7440-67-7	3.21 J	0.480	5.21	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0764	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.57	0.0826	0.413	2
06126	Barium	7440-39-3	74.7	0.109	0.413	2
06127	Beryllium	7440-41-7	0.591	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.312	0.0454	0.103	2
06131	Chromium	7440-47-3	30.1	0.124	0.413	2
06132	Cobalt	7440-48-4	8.24	0.0207	0.103	2
06133	Copper	7440-50-8	16.2	0.0826	0.413	2
06135	Lead	7439-92-1	19.8	0.0105	0.207	2
06138	Molybdenum	7439-98-7	0.431	0.0516	0.103	2
06139	Nickel	7440-02-0	16.2	0.103	0.413	2
06141	Selenium	7782-49-2	0.259 J	0.0599	0.413	2
06142	Silver	7440-22-4	0.0405 J	0.0147	0.103	2
06145	Thallium	7440-28-0	0.257	0.0310	0.103	2
06148	Vanadium	7440-62-2	51.5	0.0227	0.103	2
06149	Zinc	7440-66-6	58.7	0.578	3.10	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0257 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.67	0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 11/08/2011 12:18

Chantilly VA 20151

E5904 SDG#: DE259-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	6.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 20:51	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 13:20	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 21:50	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 23:44	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 20:20	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 05:39	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 12:40	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:46	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:23	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426113
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5904 SDG#: DE259-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:23	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:23	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:23	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:42	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 07:45	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 14:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 14:53	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	20	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.97 J	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	31	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.6	1
10401	2,4-DB	94-82-6	1.4 J	0.66	1.8	1
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3	1
10401	Dinoseb	88-85-7	0.85 U	0.85	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	81 U	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	1.6 J	0.85	3.6	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	2.2	0.070	0.36	1
01363	p,p-DDT	50-29-3	1.8	0.070	0.36	1
01363	Delta BHC	319-86-8	1.4 U	1.4	1.4	1
01363	Dieldrin	60-57-1	0.15 U	0.15	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.070 U	0.070	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.098 U	0.098	0.36	1
01363	Endrin Aldehyde	7421-93-4	1.2 U	1.2	1.2	1
01363	Endrin Ketone	53494-70-5	0.31 U	0.31	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.13 U	0.13	0.18	1
01363	Methoxychlor	72-43-5	2.2 U	2.2	2.2	1
01363	Mirex	2385-85-5	0.46 U	0.46	0.46	1
01363	Toxaphene	8001-35-2	13 U	13	13	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	2.4 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	14	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.2	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	30,400	6.27	20.7	1
07914	Boron	7440-42-8	11.6	0.373	5.18	1
01650	Calcium	7440-70-2	36,200	2.59	20.7	1
01654	Iron	7439-89-6	36,800	13.5	104	5
01656	Lithium	7439-93-2	31.2	0.64	2.1	1
01657	Magnesium	7439-95-4	9,210	0.456	10.4	1
06958	Manganese	7439-96-5	307	0.0373	0.518	1
10145	Phosphorus	7723-14-0	678	0.363	10.4	1
01662	Potassium	7440-09-7	5,170	11.7	51.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01667	Sodium	7440-23-5	114	6.17	104	1
07968	Strontium	7440-24-6	81.7	0.0259	0.518	1
06969	Tin	7440-31-5	1.98 J	0.332	10.4	1
06970	Titanium	7440-32-6	1,490	0.0750	1.06	1
10146	Zirconium	7440-67-7	3.28 J	0.477	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.141 J	0.0774	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.06	0.0837	0.419	2
06126	Barium	7440-39-3	116	0.111	0.419	2
06127	Beryllium	7440-41-7	0.757	0.0167	0.105	2
06128	Cadmium	7440-43-9	0.247	0.0460	0.105	2
06131	Chromium	7440-47-3	32.0	0.126	0.419	2
06132	Cobalt	7440-48-4	12.2	0.0209	0.105	2
06133	Copper	7440-50-8	21.7	0.0837	0.419	2
06135	Lead	7439-92-1	17.6	0.0107	0.209	2
06138	Molybdenum	7439-98-7	0.362	0.0523	0.105	2
06139	Nickel	7440-02-0	20.5	0.105	0.419	2
06141	Selenium	7782-49-2	0.331 J	0.0607	0.419	2
06142	Silver	7440-22-4	0.0384 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.342	0.0314	0.105	2
06148	Vanadium	7440-62-2	64.7	0.0230	0.105	2
06149	Zinc	7440-66-6	77.0	0.586	3.14	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0329 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.72	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	6.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 21:16	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 13:54	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 22:18	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 00:14	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 20:39	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/14/2011 05:59	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 12:53	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:50	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426114
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5905 SDG#: DE259-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:26	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:43	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 07:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 14:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 15:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	230	J 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	36	J 17	350	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	30	J 17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.3 J	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	4.7	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	26	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	8.0 J	6.2	19	1
10138	Chrysene	218-01-9	1.6 J	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	1.7 J	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.73 J	0.69	1.7	1
10138	Pyrene	129-00-0	1.1 J	0.69	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	1.6 U	1.6	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	1,600	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.078 U	0.078	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.3 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.35	1
01363	p,p-DDE	72-55-9	2.0	0.069	0.35	1
01363	p,p-DDT	50-29-3	2.1	0.069	0.35	1
01363	Delta BHC	319-86-8	0.50	0.038	0.17	1
01363	Dieldrin	60-57-1	0.33 J	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.12 J	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.80 U	0.80	0.80	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.11 J	0.035	0.17	1
01363	Methoxychlor	72-43-5	2.0 U	2.0	2.0	1
01363	Mirex	2385-85-5	0.55 U	0.55	0.55	1
01363	Toxaphene	8001-35-2	13 U	13	13	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	1.1 J	0.34	1.8	1
10225	PCB-1254	11097-69-1	6.8	0.34	1.8	1
10225	PCB-1260	11096-82-5	2.8	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	22,600	6.31	20.9	1
07914	Boron	7440-42-8	9.38	0.375	5.21	1
01650	Calcium	7440-70-2	12,400	2.61	20.9	1
01654	Iron	7439-89-6	26,200	2.72	20.9	1
01656	Lithium	7439-93-2	21.6	0.65	2.1	1
01657	Magnesium	7439-95-4	6,900	0.459	10.4	1
06958	Manganese	7439-96-5	462	0.0375	0.521	1
10145	Phosphorus	7723-14-0	827	0.365	10.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	6,450	11.8	52.1	1
01667	Sodium	7440-23-5	86.5 J	6.20	104	1
07968	Strontium	7440-24-6	28.9	0.0261	0.521	1
06969	Tin	7440-31-5	2.19 J	0.334	10.4	1
06970	Titanium	7440-32-6	1,220	0.0733	1.03	1
10146	Zirconium	7440-67-7	2.69 J	0.480	5.21	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.132 J	0.0772	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.22	0.0834	0.417	2
06126	Barium	7440-39-3	109	0.111	0.417	2
06127	Beryllium	7440-41-7	0.698	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.396	0.0459	0.104	2
06131	Chromium	7440-47-3	28.8	0.125	0.417	2
06132	Cobalt	7440-48-4	10.1	0.0209	0.104	2
06133	Copper	7440-50-8	19.8	0.0834	0.417	2
06135	Lead	7439-92-1	14.4	0.0106	0.209	2
06138	Molybdenum	7439-98-7	0.574	0.0521	0.104	2
06139	Nickel	7440-02-0	20.3	0.104	0.417	2
06141	Selenium	7782-49-2	0.207 J	0.0605	0.417	2
06142	Silver	7440-22-4	0.0519 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.341	0.0313	0.104	2
06148	Vanadium	7440-62-2	49.4	0.0229	0.104	2
06149	Zinc	7440-66-6	77.5	0.584	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0294 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.69	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 21:41	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/15/2011 14:25	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 22:46	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 22:45	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 20:58	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 12:57	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:55	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426115
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5906 SDG#: DE259-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:44	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 08:10	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 14:54	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 15:30	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	27	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	2.0	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.46 J	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.9	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.7	1
10401	2,4-DB	94-82-6	0.67 U	0.67	1.8	1
10401	Dicamba	1918-00-9	0.45 J	0.43	1.3	1
10401	Dinoseb	88-85-7	0.86 U	0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86 U	0.86	1.8	1
10401	MCPA	94-74-6	82 U	82	270	1
10401	MCPP (Mecoprop)	93-65-2	200 U	200	270	1
10401	2,4,5-T	93-76-5	0.088 U	0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.081 U	0.081	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Alpha BHC	319-84-6	0.037 U	0.037	0.18	1
01363	Beta BHC	319-85-7	0.065 U	0.065	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18	1
01363	Chlordane	57-74-9	1.2 J	0.86	3.7	1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37	1
01363	p,p-DDE	72-55-9	3.9	0.36	1.8	5
01363	p,p-DDT	50-29-3	4.6	0.36	1.8	5
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18	1
01363	Dieldrin	60-57-1	0.071 U	0.071	0.37	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.19 U	0.19	0.37	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37	1
01363	Endrin	72-20-8	0.071 U	0.071	0.37	1
01363	Endrin Aldehyde	7421-93-4	0.37 U	0.37	0.37	1
01363	Endrin Ketone	53494-70-5	0.14 U	0.14	0.37	1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.078 U	0.078	0.18	1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8	1
01363	Mirex	2385-85-5	0.36 U	0.36	0.37	1
01363	Toxaphene	8001-35-2	7.1 U	7.1	7.1	1

The sample was injected after maintenance and a new calibration.
Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.
The DCB surrogate recovery is outside the client specified QC limits at 132%.
The recovery is within our in-house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	2.3 J	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	1.5 J	0.36	1.8	1
10225	PCB-1254	11097-69-1	8.9	0.36	1.8	1
10225	PCB-1260	11096-82-5	6.4	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,800	6.21	20.5	1
07914	Boron	7440-42-8	10.1	0.369	5.13	1
01650	Calcium	7440-70-2	11,400	2.57	20.5	1
01654	Iron	7439-89-6	25,800	2.68	20.5	1
01656	Lithium	7439-93-2	22.9	0.64	2.1	1
01657	Magnesium	7439-95-4	7,270	0.452	10.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
06958	Manganese	7439-96-5	497	0.0369	0.513	1
10145	Phosphorus	7723-14-0	864	0.359	10.3	1
01662	Potassium	7440-09-7	6,270	11.6	51.3	1
01667	Sodium	7440-23-5	88.5 J	6.11	103	1
07968	Strontium	7440-24-6	27.8	0.0257	0.513	1
06969	Tin	7440-31-5	2.30 J	0.328	10.3	1
06970	Titanium	7440-32-6	1,210	0.0750	1.06	1
10146	Zirconium	7440-67-7	2.97 J	0.472	5.13	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.151 J	0.0790	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.77	0.0854	0.427	2
06126	Barium	7440-39-3	107	0.113	0.427	2
06127	Beryllium	7440-41-7	0.626	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.398	0.0469	0.107	2
06131	Chromium	7440-47-3	26.3	0.128	0.427	2
06132	Cobalt	7440-48-4	9.05	0.0213	0.107	2
06133	Copper	7440-50-8	18.5	0.0854	0.427	2
06135	Lead	7439-92-1	19.2	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.570	0.0533	0.107	2
06139	Nickel	7440-02-0	17.4	0.107	0.427	2
06141	Selenium	7782-49-2	0.230 J	0.0619	0.427	2
06142	Silver	7440-22-4	0.0746 J	0.0152	0.107	2
06145	Thallium	7440-28-0	0.284	0.0320	0.107	2
06148	Vanadium	7440-62-2	44.7	0.0235	0.107	2
06149	Zinc	7440-66-6	83.1	0.597	3.20	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0343 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.93 J	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.56	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 22:07	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 08:07	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/12/2011 23:13	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 00:43	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 00:57	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 21:17	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:01	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 08:59	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426116
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5907 SDG#: DE259-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:46	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 08:22	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 15:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 15:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	21	J 17	340	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17 U	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.99 J	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.95 J	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	5.0	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	1.6 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	1.6 J	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.75 J	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.88 J	0.69	1.7	1
10138	Pyrene	129-00-0	0.91 J	0.69	1.7	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.3	1
10401	2,4-DB	94-82-6	0.64 U	0.64	1.8	1
10401	Dicamba	1918-00-9	0.41 U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	300	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.078 U	0.078	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	1.4 U	1.4	3.5	20

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Alpha BHC	319-84-6	0.71 U	0.71	3.5	20
01363	Beta BHC	319-85-7	1.3 U	1.3	3.5	20
01363	Gamma BHC - Lindane	58-89-9	0.71 U	0.71	3.5	20
01363	Chlordane	57-74-9	51 U	51	71	20
01363	p,p-DDD	72-54-8	1.4 U	1.4	7.1	20
01363	p,p-DDE	72-55-9	59 U	59	59	20
01363	p,p-DDT	50-29-3	74 U	74	74	50
01363	Delta BHC	319-86-8	0.75 U	0.75	3.5	20
01363	Dieldrin	60-57-1	25 U	25	25	20
01363	Endosulfan I	959-98-8	0.92 U	0.92	3.5	20
01363	Endosulfan II	33213-65-9	12 U	12	12	20
01363	Endosulfan Sulfate	1031-07-8	1.4 U	1.4	7.1	20
01363	Endrin	72-20-8	8.1 U	8.1	8.1	20
01363	Endrin Aldehyde	7421-93-4	6.7 U	6.7	7.1	20
01363	Endrin Ketone	53494-70-5	1.4 U	1.4	7.1	20
01363	Heptachlor	76-44-8	1.3 U	1.3	3.5	20
01363	Heptachlor Epoxide	1024-57-3	9.6 U	9.6	9.6	20
01363	Methoxychlor	72-43-5	7.1 U	7.1	35	20
01363	Mirex	2385-85-5	1.4 U	1.4	7.1	20
01363	Toxaphene	8001-35-2	140 U	140	140	20
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. The DCB surrogate recovery is outside the client specified QC limits at 137%. The recovery is within our in-house statistical limits of 45-150%. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	100 U	100	340	100
10225	Aroclor 5442	12642-23-8	100 U	100	340	100
10225	Aroclor 5460	11126-42-4	100 U	100	340	100
10225	PCB-1016	12674-11-2	34 U	34	180	100
10225	PCB-1221	11104-28-2	34 U	34	180	100
10225	PCB-1232	11141-16-5	34 U	34	180	100
10225	PCB-1242	53469-21-9	34 U	34	180	100
10225	PCB-1248	12672-29-6	500	34	180	100
10225	PCB-1254	11097-69-1	1,500	34	180	100
10225	PCB-1260	11096-82-5	220	41	180	100
10225	PCB-1262	37324-23-5	34 U	34	180	100
10225	PCB-1268	11100-14-4	34 U	34	180	100
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	24,600	6.18	20.4	1
07914	Boron	7440-42-8	8.97	0.368	5.11	1
01650	Calcium	7440-70-2	20,800	2.56	20.4	1
01654	Iron	7439-89-6	30,100	13.3	102	5
01656	Lithium	7439-93-2	24.0	0.63	2.0	1
01657	Magnesium	7439-95-4	7,380	0.450	10.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
06958	Manganese	7439-96-5	474	0.0368	0.511	1
10145	Phosphorus	7723-14-0	840	0.358	10.2	1
01662	Potassium	7440-09-7	6,280	11.6	51.1	1
01667	Sodium	7440-23-5	86.8 J	6.08	102	1
07968	Strontium	7440-24-6	37.8	0.0256	0.511	1
06969	Tin	7440-31-5	2.36 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,200	0.0740	1.04	1
10146	Zirconium	7440-67-7	3.05 J	0.470	5.11	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.120 J	0.0764	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.24	0.0826	0.413	2
06126	Barium	7440-39-3	107	0.109	0.413	2
06127	Beryllium	7440-41-7	0.690	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.402	0.0454	0.103	2
06131	Chromium	7440-47-3	30.0	0.124	0.413	2
06132	Cobalt	7440-48-4	9.73	0.0206	0.103	2
06133	Copper	7440-50-8	19.2	0.0826	0.413	2
06135	Lead	7439-92-1	13.4	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.504	0.0516	0.103	2
06139	Nickel	7440-02-0	19.3	0.103	0.413	2
06141	Selenium	7782-49-2	0.194 J	0.0599	0.413	2
06142	Silver	7440-22-4	0.0484 J	0.0147	0.103	2
06145	Thallium	7440-28-0	0.306	0.0310	0.103	2
06148	Vanadium	7440-62-2	51.0	0.0227	0.103	2
06149	Zinc	7440-66-6	73.9	0.578	3.10	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0123 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.97 J	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.44	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 22:32	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 08:40	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 01:03	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 05:07	Melissa McDermott	50
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 05:37	Melissa McDermott	20
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/19/2011 02:17	Tara L Snyder	100
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/14/2011 06:18	Joanne M Gates	5
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:06	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:03	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426117
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5908 SDG#: DE259-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:47	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 08:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 15:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 16:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Butylbenzylphthalate	85-68-7	210	17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	17	U 17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.52	J 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	1.2	J 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.6	J 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	5.8	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.84	J 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	3.9	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	51	6.1	18	1
10138	Fluoranthene	206-44-0	3.0	0.68	1.7	1
10138	Fluorene	86-73-7	1.1	J 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18	1
10138	Phenanthrene	85-01-8	0.81	J 0.68	1.7	1
10138	Pyrene	129-00-0	1.3	J 0.68	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.2
10401	2,4-DB	94-82-6	4.0	0.63	1.7
10401	Dicamba	1918-00-9	0.61	J 0.41	1.2
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.7
10401	MCPA	94-74-6	190	U 190	260
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260
10401	2,4,5-T	93-76-5	0.084	U 0.084	0.17
10401	2,4,5-TP	93-72-1	0.077	U 0.077	0.17

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.067 U	0.067	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.061 U	0.061	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	2.7 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.067 U	0.067	0.35	1
01363	p,p-DDE	72-55-9	1.6	0.067	0.35	1
01363	p,p-DDT	50-29-3	2.0	0.067	0.35	1
01363	Delta BHC	319-86-8	1.3 U	1.3	1.3	1
01363	Dieldrin	60-57-1	0.21 U	0.21	0.35	1
01363	Endosulfan I	959-98-8	0.27 U	0.27	0.27	1
01363	Endosulfan II	33213-65-9	0.067 U	0.067	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.67 U	0.67	3.5	10
01363	Endrin	72-20-8	0.18 U	0.18	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.99 U	0.99	0.99	1
01363	Endrin Ketone	53494-70-5	0.33 U	0.33	0.35	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.12 U	0.12	0.17	1
01363	Methoxychlor	72-43-5	1.2 U	1.2	1.7	1
01363	Mirex	2385-85-5	0.26 U	0.26	0.35	1
01363	Toxaphene	8001-35-2	20 U	20	20	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. The DCB surrogate recovery is outside the client specified QC limits at 129%. The recovery is within our in-house statistical limits of 45-150%. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,200	5.95	19.7	1
07914	Boron	7440-42-8	1.70 J	0.354	4.92	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	3,480	2.46	19.7	1
01654	Iron	7439-89-6	19,800	2.57	19.7	1
01656	Lithium	7439-93-2	24.2	0.61	2.0	1
01657	Magnesium	7439-95-4	4,070	0.433	9.83	1
06958	Manganese	7439-96-5	272	0.0354	0.492	1
10145	Phosphorus	7723-14-0	348	0.344	9.83	1
01662	Potassium	7440-09-7	3,000	11.1	49.2	1
01667	Sodium	7440-23-5	57.7 J	5.85	98.3	1
07968	Strontium	7440-24-6	8.34	0.0246	0.492	1
06969	Tin	7440-31-5	2.50 J	0.315	9.83	1
06970	Titanium	7440-32-6	1,020	0.0719	1.01	1
10146	Zirconium	7440-67-7	1.50 J	0.452	4.92	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0723 J	0.0721	0.195	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.79	0.0779	0.390	2
06126	Barium	7440-39-3	74.6	0.103	0.390	2
06127	Beryllium	7440-41-7	0.476	0.0156	0.0974	2
06128	Cadmium	7440-43-9	0.153	0.0428	0.0974	2
06131	Chromium	7440-47-3	14.3	0.117	0.390	2
06132	Cobalt	7440-48-4	5.64	0.0195	0.0974	2
06133	Copper	7440-50-8	7.44	0.0779	0.390	2
06135	Lead	7439-92-1	8.31	0.0099	0.195	2
06138	Molybdenum	7439-98-7	0.459	0.0487	0.0974	2
06139	Nickel	7440-02-0	9.48	0.0974	0.390	2
06141	Selenium	7782-49-2	0.125 J	0.0565	0.390	2
06142	Silver	7440-22-4	0.0234 J	0.0138	0.0974	2
06145	Thallium	7440-28-0	0.254	0.0292	0.0974	2
06148	Vanadium	7440-62-2	30.6	0.0214	0.0974	2
06149	Zinc	7440-66-6	55.7	0.545	2.92	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0098 J	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.52	0.0100	0.0100	1
	Wet Chemistry	EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 22:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 09:13	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 01:31	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 02:41	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 02:55	Melissa McDermott	10
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 21:35	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426118
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5909 SDG#: DE259-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:10	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:08	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:48	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 08:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 16:03	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 16:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401A	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	220	18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 18	360	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8	1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71	U 0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.75	J 0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.2	J 0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.3	J 0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	3.3	J 0.71	1.8	1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19	1
10138	Chrysene	218-01-9	1.6	J 0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Fluoranthene	206-44-0	1.5	J 0.71	1.8	1
10138	Fluorene	86-73-7	0.74	J 0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.79	J 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8	1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	0.71	U 0.71	1.8	1
10138	Pyrene	129-00-0	0.71	U 0.71	1.8	1
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.3	U 1.3	3.9	1
10401	Dalapon	75-99-0	4.7	U 4.7	9.6	1
10401	2,4-DB	94-82-6	0.66	U 0.66	1.8	1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3	1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8	1
10401	MCPA	94-74-6	81	U 81	270	1
10401	MCPP (Mecoprop)	93-65-2	80	U 80	270	1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18	1
10401	2,4,5-TP	93-72-1	0.080	U 0.080	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.071	U 0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036	U 0.036	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	0.86 U	0.86	3.6	1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.36	1
01363	p,p-DDE	72-55-9	1.0	0.071	0.36	1
01363	p,p-DDT	50-29-3	1.1	0.071	0.36	1
01363	Delta BHC	319-86-8	0.72	0.039	0.18	1
01363	Dieldrin	60-57-1	0.13 U	0.13	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36	1
01363	Endrin	72-20-8	0.071 U	0.071	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.40 U	0.40	0.40	1
01363	Endrin Ketone	53494-70-5	0.35 U	0.35	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.18	1
01363	Methoxychlor	72-43-5	0.74 U	0.74	1.8	1
01363	Mirex	2385-85-5	0.35 U	0.35	0.36	1
01363	Toxaphene	8001-35-2	5.5 U	5.5	7.1	1
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	2.4 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.2 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.2	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	20,400	6.30	20.8	1
07914	Boron	7440-42-8	9.51	0.375	5.21	1
01650	Calcium	7440-70-2	109,000	13.0	104	5
01654	Iron	7439-89-6	27,100	2.72	20.8	1
01656	Lithium	7439-93-2	20.6	0.65	2.1	1
01657	Magnesium	7439-95-4	7,010	0.458	10.4	1
06958	Manganese	7439-96-5	395	0.0375	0.521	1
10145	Phosphorus	7723-14-0	544	0.365	10.4	1
01662	Potassium	7440-09-7	5,050	11.8	52.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01667	Sodium	7440-23-5	115	6.20	104	1
07968	Strontium	7440-24-6	135	0.0260	0.521	1
06969	Tin	7440-31-5	2.04 J	0.333	10.4	1
06970	Titanium	7440-32-6	1,010	0.0747	1.05	1
10146	Zirconium	7440-67-7	3.21 J	0.479	5.21	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.182 J	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.97	0.0833	0.417	2
06126	Barium	7440-39-3	79.5	0.110	0.417	2
06127	Beryllium	7440-41-7	0.581	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.346	0.0458	0.104	2
06131	Chromium	7440-47-3	27.1	0.125	0.417	2
06132	Cobalt	7440-48-4	8.63	0.0208	0.104	2
06133	Copper	7440-50-8	18.0	0.0833	0.417	2
06135	Lead	7439-92-1	23.0	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.427	0.0521	0.104	2
06139	Nickel	7440-02-0	16.5	0.104	0.417	2
06141	Selenium	7782-49-2	0.235 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0311 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.273	0.0313	0.104	2
06148	Vanadium	7440-62-2	44.8	0.0229	0.104	2
06149	Zinc	7440-66-6	63.1	0.583	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0160 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.29	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	6.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor

Wet Chemistry

EPA 160.3 modified

%

%

%

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 23:22	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 09:46	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 01:58	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/16/2011 23:00	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 21:54	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 06:25	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:14	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:12	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426119
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5910 SDG#: DE259-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:49	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201A	10/15/2011 08:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201A	10/14/2011 16:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 16:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201A	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201A	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	5.5	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	19	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	7.6	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	8.1	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	1.3 J	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	33	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	220	64	190	10
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	16	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	2.2	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	300	6.4	19	1
10138	Fluoranthene	206-44-0	14	0.71	1.8	1
10138	Fluorene	86-73-7	5.2	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.84 J	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	1.0 J	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	3.1	0.71	1.8	1
10138	Pyrene	129-00-0	6.8	0.71	1.8	1

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.8
10401	Dalapon	75-99-0	4.7 U	4.7	9.6
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8
10401	Dicamba	1918-00-9	0.43 U	0.43	1.3
10401	Dinoseb	88-85-7	0.85 U	0.85	2.6
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8
10401	MCPA	94-74-6	81 U	81	270
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071 U	0.071	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.18	1
01363	Chlordane	57-74-9	3.7	0.86	3.6	1
01363	p,p-DDD	72-54-8	0.29 U	0.29	0.36	1
01363	p,p-DDE	72-55-9	1.4	0.071	0.36	1
01363	p,p-DDT	50-29-3	1.0	0.071	0.36	1
01363	Delta BHC	319-86-8	1.7	0.19	0.89	5
01363	Dieldrin	60-57-1	0.14 U	0.14	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.36	1
01363	Endrin	72-20-8	0.071 U	0.071	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.69 U	0.69	0.69	1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.36	1
01363	Heptachlor	76-44-8	0.13 U	0.13	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.058 U	0.058	0.18	1
01363	Methoxychlor	72-43-5	0.93 U	0.93	1.8	1
01363	Mirex	2385-85-5	0.40 U	0.40	0.40	1
01363	Toxaphene	8001-35-2	15 U	15	15	1

The sample was injected after maintenance and a new calibration.
Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,600	6.41	21.2	1
07914	Boron	7440-42-8	10.4	0.382	5.30	1
01650	Calcium	7440-70-2	48,700	2.65	21.2	1
01654	Iron	7439-89-6	31,400	13.8	106	5
01656	Lithium	7439-93-2	23.9	0.66	2.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01657	Magnesium	7439-95-4	7,600	0.466	10.6	1
06958	Manganese	7439-96-5	375	0.0382	0.530	1
10145	Phosphorus	7723-14-0	706	0.371	10.6	1
01662	Potassium	7440-09-7	5,560	12.0	53.0	1
01667	Sodium	7440-23-5	95.7 J	6.31	106	1
07968	Strontium	7440-24-6	58.9	0.0265	0.530	1
06969	Tin	7440-31-5	2.23 J	0.339	10.6	1
06970	Titanium	7440-32-6	1,100	0.0753	1.06	1
10146	Zirconium	7440-67-7	3.92 J	0.488	5.30	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0777	0.210	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.44	0.0840	0.420	2
06126	Barium	7440-39-3	88.1	0.111	0.420	2
06127	Beryllium	7440-41-7	0.562	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.357	0.0462	0.105	2
06131	Chromium	7440-47-3	31.0	0.126	0.420	2
06132	Cobalt	7440-48-4	7.51	0.0210	0.105	2
06133	Copper	7440-50-8	15.9	0.0840	0.420	2
06135	Lead	7439-92-1	12.8	0.0107	0.210	2
06138	Molybdenum	7439-98-7	0.383	0.0525	0.105	2
06139	Nickel	7440-02-0	16.2	0.105	0.420	2
06141	Selenium	7782-49-2	0.201 J	0.0609	0.420	2
06142	Silver	7440-22-4	0.0342 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.262	0.0315	0.105	2
06148	Vanadium	7440-62-2	51.1	0.0231	0.105	2
06149	Zinc	7440-66-6	61.2	0.588	3.15	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0199 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.77 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.61	0.0100	0.0100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/17/2011 23:47	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 10:19	Joseph M Gambler	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/18/2011 08:36	Joseph M Gambler	10
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 02:26	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 03:10	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 03:25	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 22:13	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/14/2011 06:44	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:19	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:16	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426120
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5911 SDG#: DE259-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:44	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:44	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:44	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:44	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:50	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 09:11	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 16:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 16:56	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	210	18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.4 J	0.70	1.8	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.51 J	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.5 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 12 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3 U	1.3	3.8
10401	Dalapon	75-99-0	4.7 U	4.7	9.5
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8
10401	Dicamba	1918-00-9	0.42 U	0.42	1.3
10401	Dinoseb	88-85-7	0.85 U	0.85	2.5
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8
10401	MCPA	94-74-6	81 U	81	270
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18

The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.078 U	0.078	0.18	1
01363	Chlordane	57-74-9	3.6 J	0.85	3.6	1
01363	p,p-DDD	72-54-8	0.070 U	0.070	0.36	1
01363	p,p-DDE	72-55-9	2.0	0.070	0.36	1
01363	p,p-DDT	50-29-3	1.9	0.070	0.36	1
01363	Delta BHC	319-86-8	1.2 U	1.2	1.2	5
01363	Dieldrin	60-57-1	0.33 U	0.33	0.36	1
01363	Endosulfan I	959-98-8	0.095 U	0.095	0.18	1
01363	Endosulfan II	33213-65-9	0.070 U	0.070	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.072 U	0.072	0.36	1
01363	Endrin	72-20-8	0.14 U	0.14	0.36	1
01363	Endrin Aldehyde	7421-93-4	2.2 U	2.2	2.2	1
01363	Endrin Ketone	53494-70-5	0.34 U	0.34	0.34	1
01363	Heptachlor	76-44-8	0.091 U	0.091	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.18 U	0.18	0.18	1
01363	Methoxychlor	72-43-5	2.1 U	2.1	2.1	1
01363	Mirex	2385-85-5	0.51 U	0.51	0.51	1
01363	Toxaphene	8001-35-2	42 U	42	42	1

The sample was injected after maintenance and a new calibration.
Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.3 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,600	6.29	20.8	1
07914	Boron	7440-42-8	7.64	0.374	5.20	1
01650	Calcium	7440-70-2	100,000	13.0	104	5
01654	Iron	7439-89-6	23,300	2.71	20.8	1
01656	Lithium	7439-93-2	22.4	0.64	2.1	1
01657	Magnesium	7439-95-4	6,650	0.457	10.4	1
06958	Manganese	7439-96-5	285	0.0374	0.520	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
10145	Phosphorus	7723-14-0	489	0.364	10.4	1
01662	Potassium	7440-09-7	4,270	11.7	52.0	1
01667	Sodium	7440-23-5	112	6.19	104	1
07968	Strontium	7440-24-6	138	0.0260	0.520	1
06969	Tin	7440-31-5	2.07 J	0.333	10.4	1
06970	Titanium	7440-32-6	1,020	0.0745	1.05	1
10146	Zirconium	7440-67-7	4.98 J	0.478	5.20	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.120 J	0.0785	0.212	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.00	0.0848	0.424	2
06126	Barium	7440-39-3	73.7	0.112	0.424	2
06127	Beryllium	7440-41-7	0.547	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.324	0.0467	0.106	2
06131	Chromium	7440-47-3	34.0	0.127	0.424	2
06132	Cobalt	7440-48-4	7.64	0.0212	0.106	2
06133	Copper	7440-50-8	14.8	0.0848	0.424	2
06135	Lead	7439-92-1	11.9	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.311	0.0530	0.106	2
06139	Nickel	7440-02-0	15.2	0.106	0.424	2
06141	Selenium	7782-49-2	0.249 J	0.0615	0.424	2
06142	Silver	7440-22-4	0.0264 J	0.0151	0.106	2
06145	Thallium	7440-28-0	0.243	0.0318	0.106	2
06148	Vanadium	7440-62-2	53.2	0.0233	0.106	2
06149	Zinc	7440-66-6	58.8	0.594	3.18	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0281 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.84	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.82 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.64	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 10:52	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 02:53	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 03:39	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 03:54	Melissa McDermott	5
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 22:32	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 06:52	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:23	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:21	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:47	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426121
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5912 SDG#: DE259-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:47	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:47	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:47	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:53	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 10:24	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 18:22	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 17:03	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Butylbenzylphthalate	85-68-7	260	18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18 U	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	1.6 J	0.71	1.8	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg		
10401	2,4-D	94-75-7	1.3 U	1.3	3.8	1
10401	Dalapon	75-99-0	4.7 U	4.7	9.6	1
10401	2,4-DB	94-82-6	0.66 U	0.66	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.85 U	0.85	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	81 U	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.087 U	0.087	0.18	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1
The recovery for Dinoseb is outside the QC limits. However, this compound does not recover well with this method. Since the recovery is within our laboratory statistical limits of 0-36%, the data is reported.						
Pesticides/PCBs	SW-846 8081A	ug/kg	ug/kg	ug/kg		
01363	Aldrin	309-00-2	0.70 U	0.70	1.8	10
01363	Alpha BHC	319-84-6	0.36 U	0.36	1.8	10

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8081A						
01363	Beta BHC	319-85-7	0.64 U	0.64	1.8	10
01363	Gamma BHC - Lindane	58-89-9	0.36 U	0.36	1.8	10
01363	Chlordane	57-74-9	8.5 U	8.5	36	10
01363	p,p-DDD	72-54-8	0.70 U	0.70	3.6	10
01363	p,p-DDE	72-55-9	4.3	0.70	3.6	10
01363	p,p-DDT	50-29-3	3.0 J	0.70	3.6	10
01363	Delta BHC	319-86-8	12	0.38	1.8	10
01363	Dieldrin	60-57-1	0.70 U	0.70	3.6	10
01363	Endosulfan I	959-98-8	0.47 U	0.47	1.8	10
01363	Endosulfan II	33213-65-9	0.70 U	0.70	3.6	10
01363	Endosulfan Sulfate	1031-07-8	0.70 U	0.70	3.6	10
01363	Endrin	72-20-8	2.3 U	2.3	3.6	10
01363	Endrin Aldehyde	7421-93-4	3.7 U	3.7	3.7	10
01363	Endrin Ketone	53494-70-5	0.70 U	0.70	3.6	10
01363	Heptachlor	76-44-8	0.64 U	0.64	1.8	10
01363	Heptachlor Epoxide	1024-57-3	0.40 J	0.36	1.8	10
01363	Methoxychlor	72-43-5	6.4 U	6.4	18	10
01363	Mirex	2385-85-5	0.70 U	0.70	3.6	10
01363	Toxaphene	8001-35-2	45 U	45	70	10
The sample was injected after maintenance and a new calibration. Toxaphene in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	23,800	6.18	20.4	1
07914	Boron	7440-42-8	10.6	0.367	5.10	1
01650	Calcium	7440-70-2	95,500	12.8	102	5
01654	Iron	7439-89-6	25,200	2.66	20.4	1
01656	Lithium	7439-93-2	23.1	0.63	2.0	1
01657	Magnesium	7439-95-4	7,060	0.449	10.2	1
06958	Manganese	7439-96-5	347	0.0367	0.510	1
10145	Phosphorus	7723-14-0	642	0.357	10.2	1
01662	Potassium	7440-09-7	5,120	11.5	51.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01667	Sodium	7440-23-5	94.3 J	6.07	102	1
07968	Strontium	7440-24-6	96.3	0.0255	0.510	1
06969	Tin	7440-31-5	1.84 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,200	0.0746	1.05	1
10146	Zirconium	7440-67-7	2.23 J	0.470	5.10	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.134 J	0.0763	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.80	0.0825	0.412	2
06126	Barium	7440-39-3	87.5	0.109	0.412	2
06127	Beryllium	7440-41-7	0.617	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.384	0.0453	0.103	2
06131	Chromium	7440-47-3	31.4	0.124	0.412	2
06132	Cobalt	7440-48-4	8.67	0.0206	0.103	2
06133	Copper	7440-50-8	15.8	0.0825	0.412	2
06135	Lead	7439-92-1	16.7	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.399	0.0515	0.103	2
06139	Nickel	7440-02-0	17.5	0.103	0.412	2
06141	Selenium	7782-49-2	0.266 J	0.0598	0.412	2
06142	Silver	7440-22-4	0.0485 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.289	0.0309	0.103	2
06148	Vanadium	7440-62-2	53.8	0.0227	0.103	2
06149	Zinc	7440-66-6	62.8	0.577	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0248 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.92 J	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	31.8	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.34 J	0.20	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.59	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	5.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor

Wet Chemistry

EPA 160.3 modified

%

%

%

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 00:38	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 11:24	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112830002A	10/13/2011 03:21	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112840037A	10/17/2011 05:52	Melissa McDermott	10
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011 22:50	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112840037A	10/12/2011 12:00	Olivia I Santiago	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112830002A	10/11/2011 07:45	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/14/2011 07:00	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:28	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:33	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 08:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426122
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5913 SDG#: DE259-13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 08:59	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 08:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 08:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:55	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 10:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 18:45	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 17:25	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426123
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5914 SDG#: DE259-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426123
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5914 SDG#: DE259-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.65 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426123
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5914 SDG#: DE259-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,200	5.98	19.8	1
07914	Boron	7440-42-8	0.356 U	0.356	4.94	1
01650	Calcium	7440-70-2	6,950	2.47	19.8	1
01654	Iron	7439-89-6	28,700	12.9	98.8	5
01656	Lithium	7439-93-2	36.1	0.61	2.0	1
01657	Magnesium	7439-95-4	7,430	0.435	9.88	1
06958	Manganese	7439-96-5	509	0.0356	0.494	1
10145	Phosphorus	7723-14-0	521	0.346	9.88	1
01662	Potassium	7440-09-7	2,800	11.2	49.4	1
01667	Sodium	7440-23-5	121	5.88	98.8	1
07968	Strontium	7440-24-6	9.98	0.0247	0.494	1
06969	Tin	7440-31-5	2.50 J	0.316	9.88	1
06970	Titanium	7440-32-6	1,420	0.0715	1.01	1
10146	Zirconium	7440-67-7	1.00 J	0.454	4.94	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0841 J	0.0753	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.46	0.0814	0.407	2
06126	Barium	7440-39-3	135	0.108	0.407	2
06127	Beryllium	7440-41-7	0.815	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.190	0.0447	0.102	2
06131	Chromium	7440-47-3	41.6	0.122	0.407	2
06132	Cobalt	7440-48-4	10.3	0.0203	0.102	2
06133	Copper	7440-50-8	15.9	0.0814	0.407	2
06135	Lead	7439-92-1	6.89	0.0104	0.203	2
06138	Molybdenum	7439-98-7	0.626	0.0509	0.102	2
06139	Nickel	7440-02-0	29.2	0.102	0.407	2
06141	Selenium	7782-49-2	0.149 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0736 J	0.0144	0.102	2
06145	Thallium	7440-28-0	0.346	0.0305	0.102	2
06148	Vanadium	7440-62-2	58.8	0.0224	0.102	2
06149	Zinc	7440-66-6	77.0	0.570	3.05	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.6	0.84	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.20	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426123
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5914 SDG#: DE259-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.79	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLC026	10/18/2011	01:03	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011	11:58	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011	02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011	12:00	Olivia I Santiago	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011	23:09	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011	10:30	Olivia Arosemena	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/14/2011	07:07	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011	13:32	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011	09:38	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011	09:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011	09:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011	09:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011	09:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011	09:04	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426123
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5914 SDG#: DE259-14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:56	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 10:48	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 19:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 17:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426124
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5915 SDG#: DE259-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426124
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5915 SDG#: DE259-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	190 U	190	190	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426124
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5915 SDG#: DE259-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,000	6.68	22.1	1
07914	Boron	7440-42-8	0.397 U	0.397	5.52	1
01650	Calcium	7440-70-2	6,810	2.76	22.1	1
01654	Iron	7439-89-6	49,400	14.4	110	5
01656	Lithium	7439-93-2	52.2	0.68	2.2	1
01657	Magnesium	7439-95-4	11,300	0.486	11.0	1
06958	Manganese	7439-96-5	444	0.0397	0.552	1
10145	Phosphorus	7723-14-0	914	0.386	11.0	1
01662	Potassium	7440-09-7	2,610	12.5	55.2	1
01667	Sodium	7440-23-5	834	6.57	110	1
07968	Strontium	7440-24-6	31.7	0.0276	0.552	1
06969	Tin	7440-31-5	3.10 J	0.353	11.0	1
06970	Titanium	7440-32-6	1,430	0.0784	1.10	1
10146	Zirconium	7440-67-7	0.508 U	0.508	5.52	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.214 J	0.0817	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	13.8	0.0883	0.442	2
06126	Barium	7440-39-3	298	0.293	1.10	5
06127	Beryllium	7440-41-7	1.64	0.0442	0.276	5
06128	Cadmium	7440-43-9	0.420	0.0486	0.110	2
06131	Chromium	7440-47-3	53.2	0.132	0.442	2
06132	Cobalt	7440-48-4	20.1	0.0221	0.110	2
06133	Copper	7440-50-8	45.8	0.0883	0.442	2
06135	Lead	7439-92-1	18.7	0.0113	0.221	2
06138	Molybdenum	7439-98-7	0.714	0.0552	0.110	2
06139	Nickel	7440-02-0	58.3	0.110	0.442	2
06141	Selenium	7782-49-2	1.72	0.0640	0.442	2
06142	Silver	7440-22-4	1.04	0.0157	0.110	2
06145	Thallium	7440-28-0	0.472	0.0331	0.110	2
06148	Vanadium	7440-62-2	80.4	0.0243	0.110	2
06149	Zinc	7440-66-6	113	0.618	3.31	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0667 J	0.0079	0.112	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.2	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.8	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.78 J	0.23	1.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426124
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5915 SDG#: DE259-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.19	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLC026	10/18/2011	01:28	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011	12:31	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011	02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011	12:00	Olivia I Santiago	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/18/2011	23:28	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011	10:30	Olivia Arosemena	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/14/2011	07:11	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011	13:44	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011	09:42	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011	09:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011	09:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011	09:38	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011	09:38	Choon Y Tian	5
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011	09:07	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426124
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5915 SDG#: DE259-15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:57	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 11:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 19:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 17:54	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426125
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5916 SDG#: DE259-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426125
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5916 SDG#: DE259-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426125
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5916 SDG#: DE259-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,700	6.16	20.4	1
07914	Boron	7440-42-8	0.367 U	0.367	5.09	1
01650	Calcium	7440-70-2	2,550	2.55	20.4	1
01654	Iron	7439-89-6	19,900	2.66	20.4	1
01656	Lithium	7439-93-2	19.1	0.63	2.0	1
01657	Magnesium	7439-95-4	5,440	0.448	10.2	1
06958	Manganese	7439-96-5	212	0.0367	0.509	1
10145	Phosphorus	7723-14-0	276	0.357	10.2	1
01662	Potassium	7440-09-7	1,280	11.5	50.9	1
01667	Sodium	7440-23-5	509	6.06	102	1
07968	Strontium	7440-24-6	12.7	0.0255	0.509	1
06969	Tin	7440-31-5	2.34 J	0.326	10.2	1
06970	Titanium	7440-32-6	1,320	0.0723	1.02	1
10146	Zirconium	7440-67-7	0.913 J	0.469	5.09	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0782 J	0.0761	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.86	0.0823	0.411	2
06126	Barium	7440-39-3	89.7	0.109	0.411	2
06127	Beryllium	7440-41-7	0.576	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.0453 U	0.0453	0.103	2
06131	Chromium	7440-47-3	27.0	0.123	0.411	2
06132	Cobalt	7440-48-4	6.14	0.0206	0.103	2
06133	Copper	7440-50-8	7.81	0.0823	0.411	2
06135	Lead	7439-92-1	4.62	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.467	0.0514	0.103	2
06139	Nickel	7440-02-0	14.0	0.103	0.411	2
06141	Selenium	7782-49-2	0.192 J	0.0597	0.411	2
06142	Silver	7440-22-4	0.0290 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.196	0.0309	0.103	2
06148	Vanadium	7440-62-2	43.8	0.0226	0.103	2
06149	Zinc	7440-66-6	52.7	0.576	3.09	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.4	0.86	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.42 J	0.21	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426125
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5916 SDG#: DE259-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.01	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	5.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 01:53	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 13:04	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/19/2011 01:02	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:48	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:46	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 09:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426125
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5916 SDG#: DE259-16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:58	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 11:13	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 19:54	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 18:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C						
11622	N-Nitrosodimethylamine	62-75-9	175 U	175	349	10
Reporting limits were raised due to interference from the sample matrix.						
GC/MS Semivolatiles SW-846 8270C						
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	2-butoxy-Ethanol	111-76-2	1,700	U 1,700	1,700	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170 U	170	520	1
04688	Phenol	108-95-2	17 U	17	170	1
04688	2-phenoxy-Ethanol	122-99-6	1,700 U	1,700	1,700	1
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.4 J	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	3.4	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.6 J	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	3.4	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.79 J	0.70	1.7	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.7	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 J	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.7	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.7	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	25.72
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	630 U	630	1,600	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.66 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.						
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.54 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	7.4	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	21	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,100	6.10	20.2	1
07914	Boron	7440-42-8	0.556 J	0.363	5.04	1
01650	Calcium	7440-70-2	3,210	2.52	20.2	1
01654	Iron	7439-89-6	19,000	2.63	20.2	1
01656	Lithium	7439-93-2	22.3	0.62	2.0	1
01657	Magnesium	7439-95-4	4,110	0.443	10.1	1
06958	Manganese	7439-96-5	242	0.0363	0.504	1
10145	Phosphorus	7723-14-0	319	0.353	10.1	1
01662	Potassium	7440-09-7	2,580	11.4	50.4	1
01667	Sodium	7440-23-5	133	6.00	101	1
07968	Strontium	7440-24-6	17.0	0.0252	0.504	1
06969	Tin	7440-31-5	2.29 J	0.323	10.1	1
06970	Titanium	7440-32-6	1,130	0.0723	1.02	1
10146	Zirconium	7440-67-7	1.42 J	0.464	5.04	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.145 J	0.0753	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.81	0.0814	0.407	2
06126	Barium	7440-39-3	105	0.108	0.407	2
06127	Beryllium	7440-41-7	0.619	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.131	0.0448	0.102	2
06131	Chromium	7440-47-3	19.7	0.122	0.407	2
06132	Cobalt	7440-48-4	6.82	0.0204	0.102	2
06133	Copper	7440-50-8	9.14	0.0814	0.407	2
06135	Lead	7439-92-1	6.71	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.788	0.0509	0.102	2
06139	Nickel	7440-02-0	12.8	0.102	0.407	2
06141	Selenium	7782-49-2	0.122 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0302 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.324	0.0305	0.102	2
06148	Vanadium	7440-62-2	38.3	0.0224	0.102	2
06149	Zinc	7440-66-6	66.8	0.570	3.05	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0981	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.84	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.84 U	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.30 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.11	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-132-SA7-SB-4.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11283SLD026	10/13/2011 18:25	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 02:18	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 13:36	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11283SLD026	10/11/2011 07:30	Katheryne V Sponheimer	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34B	10/07/2011 10:12	Laura M Krieger	25.72
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127425715	10/01/2011 16:09	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127425715	10/01/2011 16:09	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112790001A	10/07/2011 21:17	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/19/2011 01:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112790001A	10/06/2011 13:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/05/2011 00:32	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 22:09	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 14:19	Heather E Williams	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112800012A	10/12/2011 04:48	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112800012A	10/07/2011 18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 13:52	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:50	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 09:13	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:13	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:13	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:13	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 08:59	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 05:56	Ashley M Adams	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426126
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5917 SDG#: DE259-17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11287621201B	10/15/2011 05:56	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 20:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 18:23	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C						
11622	N-Nitrosodimethylamine	62-75-9	178 U	178	357	10
Reporting limits were raised due to interference from the sample matrix.						
GC/MS Semivolatiles SW-846 8270C						
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	2-butoxy-Ethanol	111-76-2	1,800	U 1,800	1,800	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180 U	180	530	1
04688	Phenol	108-95-2	18 U	18	180	1
04688	2-phenoxy-Ethanol	122-99-6	1,800 U	1,800	1,800	1
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles SW-846 8270C SIM		ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
GC Volatiles	TPH GRO SW-846 8015B mod		mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	24.9
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	640 U	640	1,600	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540	1
10501	Isopropanol	67-63-0	110 U	110	540	1
10501	Methanol	67-56-1	110 U	110	540	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11	1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11	1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11	1
GC Petroleum Hydrocarbons						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum Hydrocarbons						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.43 U	0.43	1.3	1
10199	EFH (C15-C20)	n.a.	0.48 J	0.43	1.3	1
10199	EFH (C21-C30)	n.a.	5.6	0.43	1.3	1
10199	EFH (C30 - C40)	n.a.	20	0.43	1.3	1
10199	EFH (C8-C11)	n.a.	0.43 U	0.43	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,100	6.17	20.4	1
07914	Boron	7440-42-8	1.07 J	0.367	5.10	1
01650	Calcium	7440-70-2	2,910	2.55	20.4	1
01654	Iron	7439-89-6	18,500	2.66	20.4	1
01656	Lithium	7439-93-2	20.7	0.63	2.0	1
01657	Magnesium	7439-95-4	3,930	0.449	10.2	1
06958	Manganese	7439-96-5	398	0.0367	0.510	1
10145	Phosphorus	7723-14-0	244	0.357	10.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,360	11.5	51.0	1
01667	Sodium	7440-23-5	189	6.07	102	1
07968	Strontium	7440-24-6	17.5	0.0255	0.510	1
06969	Tin	7440-31-5	2.46 J	0.326	10.2	1
06970	Titanium	7440-32-6	1,220	0.376	5.30	5
10146	Zirconium	7440-67-7	1.49 J	0.469	5.10	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0762 U	0.0762	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.94	0.0824	0.412	2
06126	Barium	7440-39-3	93.8	0.109	0.412	2
06127	Beryllium	7440-41-7	0.579	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.105	0.0453	0.103	2
06131	Chromium	7440-47-3	15.2	0.124	0.412	2
06132	Cobalt	7440-48-4	9.74	0.0206	0.103	2
06133	Copper	7440-50-8	6.53	0.0824	0.412	2
06135	Lead	7439-92-1	6.01	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.466	0.0515	0.103	2
06139	Nickel	7440-02-0	10.5	0.103	0.412	2
06141	Selenium	7782-49-2	0.425	0.0597	0.412	2
06142	Silver	7440-22-4	0.0172 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.242	0.0309	0.103	2
06148	Vanadium	7440-62-2	36.3	0.0226	0.103	2
06149	Zinc	7440-66-6	55.4	0.577	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	0.93 J	0.87	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.19	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-132-SA7-SB-9.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11283SLD026	10/13/2011 18:44	Matthew S Woods	10
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 02:44	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 14:08	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11283SLD026	10/11/2011 07:30	Katheryne V Sponheimer	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34B	10/07/2011 10:49	Laura M Krieger	24.9
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127425715	10/01/2011 16:10	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127425715	10/01/2011 16:11	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112790001A	10/07/2011 21:55	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/19/2011 01:39	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112790001A	10/06/2011 13:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/05/2011 00:49	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 22:22	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 14:46	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112800012A	10/12/2011 05:59	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112800012A	10/07/2011 18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 23:42	John W Yanzuk II	5
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:55	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 09:16	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:16	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:16	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:16	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 09:00	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 06:08	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11287621201B	10/15/2011 06:08	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 20:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11284243201A	10/14/2011 19:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426127
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5918 SDG#: DE259-18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles EPA 1625C		ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	17.3 U	17.3	34.6	1
GC/MS	Semivolatiles SW-846 8270C		ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170 U	170	520	1
04688	Benzidine	92-87-5	1,200 U	1,200	3,500	1
04688	Benzoic acid	65-85-0	170 U	170	520	1
04688	Benzyl alcohol	100-51-6	170 U	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17 U	17	170	1
04688	2-butoxy-Ethanol	111-76-2	1,700 U	1,700	1,700	1
04688	Carbazole	86-74-8	17 U	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35 U	35	170	1
04688	4-Chloroaniline	106-47-8	69 U	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17 U	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17 U	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17 U	17	170	1
04688	2-Chloronaphthalene	91-58-7	17 U	17	170	1
04688	2-Chlorophenol	95-57-8	17 U	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35 U	35	170	1
04688	Dibenzofuran	132-64-9	17 U	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17 U	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17 U	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17 U	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100 U	100	350	1
04688	2,4-Dichlorophenol	120-83-2	17 U	17	170	1
04688	2,4-Dimethylphenol	105-67-9	35 U	35	170	1
04688	3,5-Dimethylphenol	108-68-9	35 U	35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170 U	170	520	1
04688	2,4-Dinitrophenol	51-28-5	350 U	350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35 U	35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17 U	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17 U	17	170	1
04688	Hexachlorobenzene	118-74-1	17 U	17	170	1
04688	Hexachlorobutadiene	87-68-3	69 U	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170 U	170	520	1
04688	Hexachloroethane	67-72-1	17 U	17	170	1
04688	Isophorone	78-59-1	17 U	17	170	1
04688	2-Methylphenol	95-48-7	35 U	35	170	1
04688	4-Methylphenol	106-44-5	35 U	35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17 U	17	170	1
04688	3-Nitroaniline	99-09-2	35 U	35	170	1
04688	4-Nitroaniline	100-01-6	69 U	69	170	1
04688	Nitrobenzene	98-95-3	17 U	17	170	1
04688	2-Nitrophenol	88-75-5	17 U	17	170	1
04688	4-Nitrophenol	100-02-7	170 U	170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17 U	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17 U	17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170 U	170	520	1
04688	Phenol	108-95-2	17 U	17	170	1
04688	2-phenoxy-Ethanol	122-99-6	1,700 U	1,700	1,700	1
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
GC Volatiles	TPH GRO	SW-846 8015B mod	mg/kg	mg/kg	mg/kg	
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	24.37
HPLC Organics	SW-846 8315A		ug/kg	ug/kg	ug/kg	
04173	20a Formaldehyde 8315A	50-00-0	630 U	630	1,600	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0	U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0	U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0	U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34	U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34	U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34	U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34	U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34	U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34	U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41	U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34	U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34	U	0.34	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	100	U	100	520	1
10501	Isopropanol	67-63-0	100	U	100	520	1
10501	Methanol	67-56-1	100	U	100	520	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2	U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2	U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2	U	5.2	10	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.5	U	1.5	3.6	1
10318	o-Terphenyl	84-15-1	1.5	U	1.5	3.6	1
10318	p-Terphenyl	92-94-4	1.5	U	1.5	3.6	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42	U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.56	J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	4.8		0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	8.6		0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42	U	0.42	1.3	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	10,500		6.24	20.6	1
07914	Boron	7440-42-8	1.36	J	0.371	5.16	1
01650	Calcium	7440-70-2	6,720		2.58	20.6	1
01654	Iron	7439-89-6	15,700		2.69	20.6	1
01656	Lithium	7439-93-2	23.9		0.64	2.1	1
01657	Magnesium	7439-95-4	3,580		0.454	10.3	1
06958	Manganese	7439-96-5	267		0.0371	0.516	1
10145	Phosphorus	7723-14-0	304		0.361	10.3	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01662	Potassium	7440-09-7	2,980	11.7	51.6	1
01667	Sodium	7440-23-5	108	6.14	103	1
07968	Strontium	7440-24-6	13.1	0.0258	0.516	1
06969	Tin	7440-31-5	2.23 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,000	0.0718	1.01	1
10146	Zirconium	7440-67-7	1.08 J	0.474	5.16	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0748 U	0.0748	0.202	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.86	0.0809	0.405	2
06126	Barium	7440-39-3	90.3	0.107	0.405	2
06127	Beryllium	7440-41-7	0.383	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.111	0.0445	0.101	2
06131	Chromium	7440-47-3	11.7	0.121	0.405	2
06132	Cobalt	7440-48-4	4.30	0.0202	0.101	2
06133	Copper	7440-50-8	5.16	0.0809	0.405	2
06135	Lead	7439-92-1	3.63	0.0103	0.202	2
06138	Molybdenum	7439-98-7	0.342	0.0506	0.101	2
06139	Nickel	7440-02-0	7.43	0.101	0.405	2
06141	Selenium	7782-49-2	0.0587 U	0.0587	0.405	2
06142	Silver	7440-22-4	0.0144 U	0.0144	0.101	2
06145	Thallium	7440-28-0	0.226	0.0303	0.101	2
06148	Vanadium	7440-62-2	24.9	0.0222	0.101	2
06149	Zinc	7440-66-6	50.5	0.566	3.03	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.83	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	4.6	0.83	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.21	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified	%	%	%		
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-180-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11283SLD026	10/13/2011 19:03	Matthew S Woods	1
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLC026	10/18/2011 03:09	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11285SLA026	10/17/2011 14:41	Joseph M Gambler	1
11630	NDMA Soil Microwave	SW-846 3546	1	11283SLD026	10/11/2011 07:30	Katheryne V Sponheimer	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11285SLA026	10/12/2011 02:30	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLC026	10/12/2011 12:00	Olivia I Santiago	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34B	10/07/2011 11:25	Laura M Krieger	24.37
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127425715	10/01/2011 16:12	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127425715	10/01/2011 16:12	Christopher D Meeks	n.a.
04173	20a Formaldehyde 8315A	SW-846 8315A	1	112790001A	10/07/2011 22:05	James H Place	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840033A	10/19/2011 01:58	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840033A	10/12/2011 10:30	Olivia Arosemena	1
05876	Formaldehyde Solid Extraction	SW-846 8315A	1	112790001A	10/06/2011 13:00	Wanda F Oswald	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112760023A	10/05/2011 01:05	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 22:35	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 15:13	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112800012A	10/12/2011 04:24	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112800012A	10/07/2011 18:00	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112760023A	10/04/2011 17:00	Elizabeth J Marin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	112915708001	10/19/2011 14:00	Eric L Eby	1
10146	Zirconium	SW-846 6010B	1	112795708003	10/13/2011 09:59	Joanne M Gates	1
06124	Antimony	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112791026001D	10/10/2011 09:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112791026001C	10/10/2011 09:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112791026001B	10/10/2011 09:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112791026001A	10/10/2011 09:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711003	10/06/2011 09:02	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112795708003	10/09/2011 13:18	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112875708001	10/17/2011 11:09	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	3	112915708001	10/18/2011 22:06	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112791026001	10/09/2011 13:46	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711003	10/06/2011 02:00	Annamaria Stipkovits	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11287621201B	10/15/2011 06:20	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11287621201B	10/15/2011 06:20	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11286286201B	10/14/2011 21:03	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11284243201A	10/14/2011 19:57	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11287621201B	10/14/2011 06:00	William L Hamaker Jr	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426128
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5919 SDG#: DE259-19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11286286201B	10/13/2011 07:10	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11286039401B	10/13/2011 14:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11284243201A	10/11/2011 22:10	Daniel S Smith	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: FB-SA7-SB-093011 Water
SSFL Area IV Collocated Soil Sampling
FB-SA7-SB-093011

LLI Sample # WW 6426129
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5920 SDG#: DE259-20FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.478 U	0.478	0.955	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11278WAC026	10/07/2011 17:15	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11278WAC026	10/05/2011 14:25	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: EB-SA7-SB-093011 Water
SSFL Area IV Collocated Soil Sampling
EB-SA7-SB-093011

LLI Sample # WW 6426130
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5921 SDG#: DE259-21EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.952 J	0.478	0.956	1
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.						
The internal standard peak areas were outside of the QC limits for both the initial injection and the re-injection. The values here are from the initial injection of the sample.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11278WAC026	10/07/2011 17:34	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11278WAC026	10/05/2011 14:25	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-092911 Sand
SSFL Area IV Collocated Soil Sampling
TB-092911

LLI Sample # SW 6426131
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5922 SDG#: DE259-22TB

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/kg	ng/kg	ng/kg	
11622	N-Nitrosodimethylamine	62-75-9	16.5 U	16.5	33.0	1
Wet Chemistry EPA 160.3 modified			%	%	%	
11624	Moisture Content by 160.3	n.a.	0.50 U	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11622	21a NDMA by 1625C	EPA 1625C	1	11283SLD026	10/13/2011 19:23	Matthew S Woods	1
11630	NDMA Soil Microwave	SW-846 3546	1	11283SLD026	10/11/2011 07:30	Katheryne V Sponheimer	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-092911 Water
SSFL Area IV Collocated Soil Sampling
TB-092911

LLI Sample # WW 6426132
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5923 SDG#: DE259-23TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles EPA 1625C			ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	4.12	0.496	0.991	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10962	21b NDMA by 1625C	EPA 1625C	1	11278WAC026	10/07/2011 17:53	Matthew S Woods	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11278WAC026	10/05/2011 14:25	Wanda F Oswald	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-092911 Water
SSFL Area IV Collocated Soil Sampling
TB-092911

LLI Sample # WW 6426133
LLI Group # 1269321
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 11/08/2011 12:18

E5924 SDG#: DE259-24TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11279C20A	10/10/2011 14:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279C20A	10/10/2011 14:09	Marie D John	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11278WAC026 N-Nitrosodimethylamine	Sample number(s): 6426129-6426130, 6426132 0.500 U	0.500	1.00	ng/l	105	93	70-130	12	30
Batch number: 11283SLD026 N-Nitrosodimethylamine	Sample number(s): 6426126-6426128, 6426131 16.7 U	16.7	33.3	ng/kg	93		70-130		
Batch number: 11284SLC026 Aniline	Sample number(s): 6426110-6426128 170 U	170.	500	ug/kg	79		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	45		15-121		
Benzoic acid	170 U	170.	500	ug/kg	63		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	103		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	104		73-114		
2-butoxy-Ethanol	1,700 U	1,700.	1,700	ug/kg					
Butylbenzylphthalate	17 U	17.	170	ug/kg	95		75-115		
Carbazole	17 U	17.	170	ug/kg	96		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	108		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	51		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	104		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	101		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	99		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	76		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	102		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	101		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	96		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	90		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	89		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	89		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	51		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	105		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	107		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	114		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	46		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	25		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	104		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	105		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	105		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	98		75-117		
Fluoranthene	17 U	17.	170	ug/kg	104		78-116		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobenzene	17 U	17.	170	ug/kg	106		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	101		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	91		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	89		61-109		
Isophorone	17 U	17.	170	ug/kg	107		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	106		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	104		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	104		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	94		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	74		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	108		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	106		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	81		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	100		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	101		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	79		51-117		
Phenol	17 U	17.	170	ug/kg	108		58-112		
2-phenoxy-Ethanol	1,700 U	1,700.	1,700	ug/kg					
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	99		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	103		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	103		78-111		
Batch number: 11285SLA026	Sample number(s): 6426110-6426128								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	99		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	92		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	97		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	115		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	100		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	90		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	98		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	101		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	110		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	95		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	98		79-121		
Bis(2-Ethylhexyl)phthalate	12 J	6.0	18	ug/kg	140		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	98		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	111		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	89		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	89		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	91		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	96		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	89		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	95		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	92		72-119		
Batch number: 11274A34B	Sample number(s): 6426126-6426128								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	71		67-119		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11279C20A TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	100	100	75-135	0	30
Batch number: 112790001A 20a Formaldehyde 8315A	600 U	600.	1,500	ug/kg	94		80-126		
Batch number: 112830002A 2,4-D	1.2 U	1.2	3.6	ug/kg	92		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	57		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	84		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	75		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	110		62-170		
MCPA	76 U	76.	250	ug/kg	74		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	69		54-137		
2,4,5-T	0.10 J	0.082	0.17	ug/kg	116		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	75		68-114		
Batch number: 112840033A Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	79	76	36-106	5	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	85		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	95		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112840037A Aldrin	0.066 U	0.066	0.17	ug/kg	70		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	65		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	97		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	74		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	127		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	117		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	123		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	103		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	94		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	88		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	112		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	122		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	96		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	92		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	115		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	71		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	88		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	143*		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 112760023A Ethanol	100 U	100.	500	ug/kg	98		71-129		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Isopropanol	100 U	100.	500	ug/kg	98		75-125		
Methanol	100 U	100.	500	ug/kg	99		68-129		
Batch number: 112790048A	Sample number(s): 6426126-6426128								
Diethylene glycol	5.0 U	5.0	10	mg/kg	94		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	96		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	84		67-131		
Batch number: 112790037A	Sample number(s): 6426126-6426128								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		69-109		
Batch number: 112800012A	Sample number(s): 6426126-6426128								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	93		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	98		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	97		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	95		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	74		49-107		
Batch number: 112785711003	Sample number(s): 6426110-6426128								
Mercury	0.0069 U	0.0069	0.0983	mg/kg	112		82-118		
Batch number: 112791026001A	Sample number(s): 6426110-6426128								
Antimony	0.0712 U	0.0712	0.192	mg/kg	78		40-227		
Arsenic	0.0769 U	0.0769	0.385	mg/kg	102		83-111		
Beryllium	0.0154 U	0.0154	0.0962	mg/kg	98		84-112		
Cadmium	0.0423 U	0.0423	0.0962	mg/kg	99		83-111		
Chromium	0.115 U	0.115	0.385	mg/kg	115		77-123		
Cobalt	0.0192 U	0.0192	0.0962	mg/kg	103		85-114		
Copper	0.122 J	0.0769	0.385	mg/kg	101		81-110		
Lead	0.0700 J	0.0098	0.192	mg/kg	101		84-112		
Nickel	0.0962 U	0.0962	0.385	mg/kg	101		81-110		
Silver	0.0137 U	0.0137	0.0962	mg/kg	101		83-112		
Thallium	0.0288 U	0.0288	0.0962	mg/kg	102		82-112		
Vanadium	0.0212 U	0.0212	0.0962	mg/kg	103		76-110		
Zinc	0.538 U	0.538	2.88	mg/kg	100		82-110		
Batch number: 112791026001B	Sample number(s): 6426110-6426128								
Selenium	0.0558 U	0.0558	0.385	mg/kg	98		79-110		
Batch number: 112791026001C	Sample number(s): 6426110-6426128								
Molybdenum	0.0481 U	0.0481	0.0962	mg/kg	100		80-110		
Batch number: 112791026001D	Sample number(s): 6426110-6426128								
Barium	0.102 U	0.102	0.385	mg/kg	105		83-110		
Batch number: 112795708003	Sample number(s): 6426110-6426128								
Aluminum	5.93 U	5.93	19.6	mg/kg	105		51-110		
Boron	0.353 U	0.353	4.90	mg/kg	99		83-110		
Calcium	8.43 J	2.45	19.6	mg/kg	101		81-110		
Iron	6.68 J	2.56	19.6	mg/kg	98		57-110		
Lithium	0.61 U	0.61	2.0	mg/kg	100		80-120		
Magnesium	0.579 J	0.431	9.80	mg/kg	102		68-110		
Manganese	0.221 J	0.0353	0.490	mg/kg	97		85-116		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Phosphorus	1.26 J	0.343	9.80	mg/kg	105		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	101		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	98		76-110		
Strontium	0.0353 J	0.0245	0.490	mg/kg	97		84-110		
Tin	1.44 J	0.314	9.80	mg/kg	94		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	77*		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	101		80-120		
Batch number: 112915708001	Sample number(s): 6426111-6426128								
Titanium	0.0710 U	0.0710	1.00	mg/kg	90		80-120		
Batch number: 11284243201A	Sample number(s): 6426110-6426128								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	83		80-120		
Batch number: 11286286201A	Sample number(s): 6426110-6426119								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	112		85-115		
Batch number: 11286286201B	Sample number(s): 6426120-6426128								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	112		85-115		
Batch number: 11287621201A	Sample number(s): 6426111-6426119								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
Batch number: 11287621201B	Sample number(s): 6426120-6426128								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	102		90-110		
Batch number: 11286039401A	Sample number(s): 6426110-6426118								
17a pH by 9045C					100		95-105		
Batch number: 11286039401B	Sample number(s): 6426119-6426128								
17a pH by 9045C					100		95-105		
Batch number: 11285162401A	Sample number(s): 6426110-6426118								
Moisture Content by 160.3					102		80-120		
Batch number: 11285162401B	Sample number(s): 6426119-6426128, 6426131								
Moisture Content by 160.3					102		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11283SLD026	Sample number(s): 6426126-6426128, 6426131 UNSPK: P430028								
N-Nitrosodimethylamine	85	92	70-130	9	30				
Batch number: 11284SLC026	Sample number(s): 6426110-6426128 UNSPK: 6426110								
Aniline	77	71	18-116	9	30				
Benzidine	0*	0*	35-141	0	30				
Benzoic acid	40	35	10-173	14	30				
Benzyl alcohol	103	100	67-115	2	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
4-Bromophenyl-phenylether	104	102	67-129	2	30				
Butylbenzylphthalate	96	92	73-134	4	30				
Carbazole	95	90	64-120	6	30				
4-Chloro-3-methylphenol	107	101	62-122	6	30				
4-Chloroaniline	59	57	13-107	4	30				
bis(2-Chloroethoxy)methane	105*	100	75-104	6	30				
bis(2-Chloroethyl)ether	101	99	60-116	2	30				
bis(2-Chloroisopropyl)ether	101	96	55-142	5	30				
2-Chloronaphthalene	81	74	50-141	9	30				
2-Chlorophenol	101	100	73-121	1	30				
4-Chlorophenyl-phenylether	104	98	80-109	6	30				
Dibenzofuran	97	92	71-112	5	30				
1,2-Dichlorobenzene	89	86	66-108	4	30				
1,3-Dichlorobenzene	89	87	63-109	3	30				
1,4-Dichlorobenzene	90	86	58-108	5	30				
3,3'-Dichlorobenzidine	69	66	28-109	4	30				
2,4-Dichlorophenol	105	102	66-123	3	30				
2,4-Dimethylphenol	106	102	68-118	4	30				
3,5-Dimethylphenol	113	108	71-127	5	30				
4,6-Dinitro-2-methylphenol	54	55	11-126	2	30				
2,4-Dinitrophenol	31	29	20-143	5	30				
2,4-Dinitrotoluene	100	96	56-129	4	30				
2,6-Dinitrotoluene	102	97	69-123	5	30				
1,2-Diphenylhydrazine	104	100	71-129	5	30				
bis(2-Ethylhexyl)phthalate	99	95	63-122	5	30				
Fluoranthene	102	97	73-112	4	30				
Hexachlorobenzene	105	101	77-114	4	30				
Hexachlorobutadiene	102	97	62-120	5	30				
Hexachlorocyclopentadiene	88	82	10-153	6	30				
Hexachloroethane	90	87	57-109	4	30				
Isophorone	106*	102	73-102	4	30				
2-Methylphenol	103	102	75-111	2	30				
4-Methylphenol	102	101	59-123	1	30				
2-Nitroaniline	104	99	67-125	5	30				
3-Nitroaniline	96	91	59-122	6	30				
4-Nitroaniline	81	73	41-109	10	30				
Nitrobenzene	106	100	57-125	6	30				
2-Nitrophenol	103	102	56-127	1	30				
4-Nitrophenol	85	79	37-129	7	30				
N-Nitroso-di-n-propylamine	98	96	60-116	1	30				
N-Nitrosodiphenylamine	100	96	71-122	4	30				
Pentachlorophenol	84	87	28-127	3	30				
Phenol	104	103	58-126	1	30				
1,2,4-Trichlorobenzene	101	96	72-115	5	30				
2,4,5-Trichlorophenol	108	103	58-129	5	30				
2,4,6-Trichlorophenol	108	103	56-134	4	30				
Batch number: 11285SLA026 Sample number(s): 6426110-6426128 UNSPK: 6426111									
Acenaphthene	92	98	63-105	7	30				
Acenaphthylene	88	99	67-114	11	30				
Anthracene	94	104	73-115	10	30				
Benzo(a)anthracene	93	104	59-128	10	30				
Benzo(a)pyrene	103	104	58-142	1	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzo(b)fluoranthene	130	117	54-163	11	30				
Benzo(g,h,i)perylene	43	54	33-141	23	30				
Benzo(k)fluoranthene	114	115	57-153	1	30				
Butylbenzylphthalate	128	132	57-173	3	30				
Di-n-butylphthalate	119	128	65-148	7	30				
Chrysene	94	99	67-123	5	30				
Dibenz(a,h)anthracene	53	68	22-133	24	30				
Diethylphthalate	113	111	70-136	1	30				
Dimethylphthalate	102	107	74-118	5	30				
Bis(2-Ethylhexyl)phthalate	146	135	39-167	5	30				
Fluoranthene	112	114	51-149	2	30				
Fluorene	98	104	66-122	6	30				
Indeno(1,2,3-cd)pyrene	51	64	21-143	22	30				
1-Methylnaphthalene	94	95	72-123	1	30				
2-Methylnaphthalene	94	95	64-103	1	30				
Naphthalene	96	96	61-102	0	30				
N-Nitrosodimethylamine	92	92	48-113	0	30				
Di-n-octylphthalate	182	155	40-192	16	30				
Phenanthrene	93	99	62-122	6	30				
Pyrene	101	99	51-131	1	30				
Batch number: 11274A34B	Sample number(s): 6426126-6426128 UNSPK: P421299								
9a TPH by EPA 8015B Gas C5-C12	77	77	39-118	9	30				
Batch number: 112790001A	Sample number(s): 6426126-6426128 UNSPK: 6426126								
20a Formaldehyde 8315A	100	95	80-120	5	50				
Batch number: 112830002A	Sample number(s): 6426110-6426122 UNSPK: 6426110								
2,4-D	47	38	17-180	20	35				
Dalapon	0*	0*	10-125	0	50				
2,4-DB	57	52	10-201	10	50				
Dicamba	52	52	10-190	0	50				
Dinoseb	9*	15	10-46	43*	35				
2,4-DP (Dichlorprop)	82	73	33-178	11	50				
MCPA	126	60	10-213	71*	50				
MCPP (Mecoprop)	44	23	10-184	38	50				
2,4,5-T	12	46	10-156	117*	35				
2,4,5-TP	53	46	24-141	15	35				
Batch number: 112840033A	Sample number(s): 6426110-6426128 UNSPK: 6426110								
PCB-1016	70	70	29-146	1	50				
PCB-1260	81	74	39-149	8	50				
Batch number: 112840037A	Sample number(s): 6426110-6426122 UNSPK: 6426110								
Aldrin	82	73	16-126	12	50				
Alpha BHC	56	56	10-129	0	50				
Beta BHC	69	69	14-147	0	50				
Gamma BHC - Lindane	56	56	10-140	0	50				
p,p-DDD	93	90	16-163	3	50				
p,p-DDE	238 (2)	75 (2)	18-161	11	50				
p,p-DDT	159 (2)	-5 (2)	10-176	23	50				
Delta BHC	1581*	188*	23-140	158*	50				
Dieldrin	94	84	19-154	12	50				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Endosulfan I	53	47	16-137	12	50				
Endosulfan II	123	100	28-154	21	50				
Endosulfan Sulfate	146	120	21-160	20	50				
Endrin	103	63	11-149	49	50				
Endrin Aldehyde	226*	174*	10-148	26	35				
Endrin Ketone	74	76	22-165	2	50				
Heptachlor	71	68	13-126	4	50				
Heptachlor Epoxide	118	103	13-157	14	50				
Methoxychlor	125	117	32-147	6	50				
Batch number: 112760023A	Sample number(s): 6426126-6426128 UNSPK: P421299								
Ethanol	85	90	48-130	6	20				
Isopropanol	100	92	12-149	9	20				
Methanol	100	91	43-138	9	20				
Batch number: 112790048A	Sample number(s): 6426126-6426128 UNSPK: P430028								
Diethylene glycol	28*	34*	59-109	20	20				
Ethylene glycol	58*	61*	63-107	5	20				
Propylene glycol	61*	63	63-107	2	20				
Batch number: 112790037A	Sample number(s): 6426126-6426128 UNSPK: P421299								
m-Terphenyl	91	96	75-125	6	20				
o-Terphenyl	93	99	75-125	6	20				
p-Terphenyl	92	98	75-125	6	20				
Batch number: 112800012A	Sample number(s): 6426126-6426128 UNSPK: 6426126								
EFH (C12-C14)	99	90	49-123	9	20				
EFH (C15-C20)	90	98	49-123	7	20				
EFH (C21-C30)	24*	121	49-123	23*	20				
EFH (C30 - C40)	-29 (2)	283 (2)	49-123	34*	20				
EFH (C8-C11)	80	75	49-123	6	20				
Batch number: 112785711003	Sample number(s): 6426110-6426128 UNSPK: 6426110 BKG: 6426110								
Mercury	102	97	65-135	4	20	0.0386 J	0.0384 J	1 (1)	20
Batch number: 112791026001A	Sample number(s): 6426110-6426128 UNSPK: 6426110 BKG: 6426110								
Antimony	21*	20*	75-125	4	20	0.179 J	0.117 J	42* (1)	20
Arsenic	146*	86	75-125	14	20	6.11	5.40	12	20
Beryllium	95	72*	75-125	15	20	0.630	0.569	10	20
Cadmium	114	100	75-125	12	20	0.275	0.274	0 (1)	20
Chromium	132*	109	75-125	6	20	26.9	25.5	5	20
Cobalt	112	99	75-125	12	20	9.88	9.21	7	20
Copper	119	98	75-125	8	20	19.6	17.9	9	20
Lead	242 (2)	131 (2)	75-125	13	20	20.4	21.9	7	20
Nickel	125	89	75-125	13	20	18.6	16.6	11	20
Silver	107	98	75-125	10	20	0.0283 J	0.0293 J	4 (1)	20
Thallium	116	94	75-125	13	20	0.316	0.270	16 (1)	20
Vanadium	178 (2)	137 (2)	75-125	7	20	49.4	46.6	6	20
Zinc	143 (2)	76 (2)	75-125	9	20	66.1	62.3	6	20
Batch number: 112791026001B	Sample number(s): 6426110-6426128 UNSPK: 6426110 BKG: 6426110								
Selenium	100	93	75-125	9	20	0.250 J	0.238 J	5 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 112791026001C Molybdenum	102	93	75-125	11	20	0.411	0.438	6 (1)	20
Batch number: 112791026001D Barium	183 (2)	73 (2)	75-125	11	20	89.8	78.8	13	20
Batch number: 112795708003 Aluminum	3710 (2)	3342 (2)	75-125	2	20	21,600	22,600	5	20
Boron	99	100	84-115	4	20	11.4	12.0	6 (1)	20
Calcium	-3536 (2)	-4031 (2)	75-125	4	20	78,500	62,500	23*	20
Iron	2084 (2)	829 (2)	75-125	4	20	25,200	24,800	2	20
Lithium	103	103	82-114	2	20	19.6	19.9	1	20
Magnesium	591 (2)	471 (2)	75-125	2	20	7,070	7,230	2	20
Manganese	3 (2)	18 (2)	75-125	2	20	360	320	12	20
Phosphorus	84 (2)	102 (2)	75-125	3	20	549	551	0	20
Potassium	185 (2)	206 (2)	75-125	4	20	5,280	5,420	3	20
Sodium	96	96	75-125	3	20	101	101	1 (1)	20
Strontium	83	76	75-115	2	20	101	88.1	14	20
Tin	78*	79*	80-110	4	20	2.13 J	1.93 J	10 (1)	20
Titanium	376 (2)	379 (2)	75-125	1	20	948	983	4	20
Zirconium	85	84	81-110	2	20	3.85 J	4.39 J	13 (1)	20
Batch number: 112915708001 Titanium	339 (2)	367 (2)	75-125	3	20	824	844	2	20
Batch number: 11284243201A 3a Cr VI by EPA 7199	93		75-125			0.29 J	0.43 J	39* (1)	20
Batch number: 11286286201A 7a Perchlorate EPA 314.0	115		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11286286201B 7a Perchlorate EPA 314.0	106		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11287621201A 11a Anions by 300.0 - Fluoride	87		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11287621201B 11a Anions by 300.0 - Fluoride	77*		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11287621201C 11a Anions by 300.0 - Nitrate	107		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11286039401A 17a pH by 9045C						6.52	6.52	0	3
Batch number: 11286039401B 17a pH by 9045C						7.29	7.29	0	3
Batch number: 11285162401A Moisture Content by 160.3						2.2	2.2	0 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11285162401B	Sample number(s): 6426119-6426128, 6426131					BKG: 6426127			
Moisture Content by 160.3						6.6	5.9	11	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 21b. NDMA in Water
Batch number: 11278WAC026
N-Nitrosodimethylamine-d6

6426129	131
6426130	267*
6426132	138
Blank	123
LCS	112
LCSD	127

Limits: 50-150

Analysis Name: 21a NDMA by 1625C
Batch number: 11283SLD026
N-Nitrosodimethylamine-d6

6426126	196*
6426127	131
6426128	111
6426131	117
Blank	127
LCS	140
MS	173*
MSD	135

Limits: 50-150

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11284SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6426110	98	98	97	94	88	84
6426111	98	99	101	97	90	87
6426112	98	98	102	95	87	84
6426113	98	98	98	97	90	84
6426114	97	98	96	94	85	81
6426115	97	97	100	95	88	85
6426116	99	99	98	96	87	84
6426117	93	94	101	92	86	84

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Surrogate Quality Control

6426118	96	96	98	93	86	82
6426119	100	100	104	96	90	86
6426120	99	99	101	96	88	85
6426121	99	100	101	97	90	85
6426122	92	95	98	94	88	84
6426123	95	95	97	95	87	85
6426124	90	90	95	88	82	81
6426125	93	94	97	94	86	82
6426126	97	97	94	92	85	84
6426127	88	87	90	86	81	79
6426128	95	94	93	88	84	83
Blank	82	84	85	83	77	74
LCS	98	100	101	98	87	85
MS	96	97	102	97	89	84
MSD	96	96	97	93	85	82

Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11285SLA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6426110	137*	86	107
6426111	108	92	97
6426112	116	92	101
6426113	105	79	146*
6426114	105	92	102
6426115	117	90	101
6426116	95	88	70
6426117	114	95	76
6426118	139*	80	86
6426119	113	90	65
6426120	221*	56	194*
6426121	113	89	72
6426122	109	94	71
6426123	95	88	72
6426124	100	88	69
6426125	99	89	69
6426126	104	87	74
6426127	101	90	74
6426128	76	69	53
Blank	102	91	91
LCS	111	91	91
MS	128	87	97
MSD	109	92	97

Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12

Batch number: 11274A34B

Trifluorotoluene-F

6426126	83
6426127	85
6426128	77
Blank	97
LCS	92
MS	96

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Surrogate Quality Control

MSD 98

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11279C20A
Trifluorotoluene-F

6426133 86
Blank 86
LCS 111
LCSD 111

Limits: 63-135

Analysis Name: 20a Formaldehyde 8315A
Batch number: 112790001A
Butyraldehyde

6426126 92
6426127 92
6426128 94
Blank 96
LCS 83
MS 92
MSD 80

Limits: 64-126

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 112830002A
2,4-Dichlorophenylacetic
acid

6426110 82
6426111 74
6426112 61
6426113 87
6426114 69
6426115 58
6426116 64
6426117 50
6426118 59
6426119 57
6426120 75
6426121 76
6426122 60
Blank 86
LCS 90
MS 61
MSD 49

Limits: 36-156

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112840033A
Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Surrogate Quality Control

6426110	89	89
6426111	108	110
6426112	97	107
6426113	103	105
6426114	65	70
6426115	106	117
6426116	80	84
6426117	116	188*
6426118	110	119
6426119	88	92
6426120	112	112
6426121	114	119
6426122	121	120
6426123	112	119
6426124	97	100
6426125	123	135*
6426126	155*	170*
6426127	109	99
6426128	106	115
Blank	91	103
LCS	91	104
LCSD	103	119
MS	82	88
MSD	88	90

Limits: 53-139 45-120

Analysis Name: 12a Pesticides by 8081A

Batch number: 112840037A

Tetrachloro-m-xylene Decachlorobiphenyl

6426110	63	89
6426111	64	106
6426112	53	80
6426113	62	79
6426114	56	69
6426115	66	81
6426116	57	132*
6426117	112	137*
6426118	65	129*
6426119	79	115
6426120	69	80
6426121	58	97
6426122	59	114
Blank	67	130*
LCS	64	129*
MS	54	83
MSD	56	80

Limits: 50-130 20-120

Analysis Name: 18a Alcohols by 8015B

Batch number: 112760023A

Acetone

6426126	95
6426127	93

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 12:18 PM

Group Number: 1269321

Surrogate Quality Control

6426128 91
Blank 101
LCS 99
MS 99
MSD 93

Limits: 42-138

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112790037A
n-Triacontane-d62

6426126 65
6426127 62
6426128 62
Blank 68
LCS 67
MS 68
MSD 69

Limits: 19-152

Analysis Name: 19a Glycols by 8015B
Batch number: 112790048A
Tetramethylene glycol

6426126 73
6426127 74
6426128 74
Blank 83
LCS 84
MS 74
MSD 73

Limits: 29-137

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112800012A
Chlorobenzene Orthoterphenyl

6426126	84	90
6426127	76	84
6426128	77	85
Blank	76	83
LCS	81	90
MS	80	88
MSD	76	87

Limits: 37-125 47-145

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

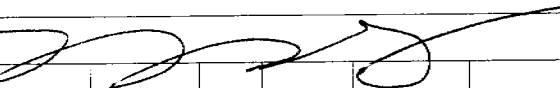
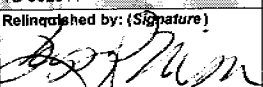
acct#13013 Cp#1269321 sample#6426110-33

CHAIN OF CUSTODY RECORD

SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetratin under EPA Method 8270C.						*Metals EPA 8010/8270/8270A/71A	*Fluoride EPA 300.0	*SVOCs EPA 8270G & PAHs 8270 SIM	*PCBs/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	*Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-SS Sleeve			X	X									
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-SS Sleeve			X	X									
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-SS Sleeve			X	X									
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory:		
		09/30/2011 / 1630														Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No.(s)														
		10/1/11 / 0945		8767 9857 4445; 8767 9857 4456														

The surface ^{run}SS & SS was added to the samples listed above. NLM 10/4/11

CHAIN OF CUSTODY RECORD

SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes					
CDM						*Metals EPA 8010/8020/8147/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**H-NOMA EPA 1625C	**Energistics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015R	**Alcohols EPA 8015B	**Downal EPA 8270						
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																															
Samplers Signatures: 																															
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	X	X	X	X	X	X	X	X																		
SL-084-SA7-SB-0.0-1.0	9/30/11	1205	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																		
SL-113-SA7-SB-0.0-1.0	9/30/11	1406	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																		
SL-115-SA7-SB-0.5-1.5	9/30/11	1223	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X																		
SL-132-SA7-SB-4.5	9/30/11	0819	SOIL	NONE	2-Encores										X																
SL-132-SA7-SB-4.0-5.0	9/30/11	0823	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X						
SL-132-SA7-SB-9.0	9/30/11	0814	SOIL	NONE	2-Encores										X																
SL-132-SA7-SB-8.5-9.5	9/30/11	0810	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X						
SL-180-SA7-SB-2.5	9/30/11	0947	SOIL	NONE	2-Encores										X																
SL-180-SA7-SB-2.0-3.0	9/30/11	0950	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X						
FB-SA7-SB-093011	9/30/11	1240	WATER	NONE	1-1 liter amber														X												
EB-SA7-SB-093011	9/30/11	1245	WATER	NONE	1-1 liter amber													X													
TB-092911	9/30/11	1430	SOIL	NONE	1-4 oz. jar													X													
TB-092911	9/30/11	1430	WATER	NONE	1-1 liter amber													X													
TB-092911	9/30/11	1430	WATER	NONE	2-40mL vials									X																	
Relinquished by: (Signature)  Date/Time 09/30/2011 / 1630						Received for Laboratory by: (Signature) _____																				Laboratory: Lancaster Laboratories, Inc.					
Received by: (Signature)  Date/Time 9/30/2011 / 1630						Airbill No.(s) 8767 9857 4445; 8767 9857 4456																									

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/01/2011

Group Number: 1269323

SDG: DX146

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-022-SA8S-SS-0.0-0.5 Soil
SL-023-SA8S-SS-0.0-0.5 Soil
SL-084-SA7-SB-0.0-1.0 Soil
SL-113-SA7-SB-0.0-1.0 Soil
SL-115-SA7-SB-0.5-1.5 Soil
SL-132-SA7-SB-4.0-5.0 Soil
SL-132-SA7-SB-8.5-9.5 Soil
SL-180-SA7-SB-2.0-3.0 SoilLancaster Labs (LLI) #6426145
6426146
6426147
6426148
6426149
6426150
6426151
6426152

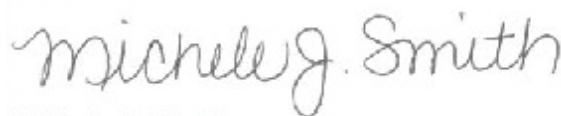
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0264 U	0.0264	1.05	1
11031	12378-PeCDD	40321-76-4	0.112 JB	0.0309	5.26	1
11031	123478-HxCDD	39227-28-6	0.0991 J	0.0297	5.26	1
11031	123678-HxCDD	57653-85-7	0.182 JQ	0.0327	5.26	1
11031	123789-HxCDD	19408-74-3	0.153 J	0.0283	5.26	1
11031	1234678-HpCDD	35822-46-9	3.60 JB	0.0328	5.26	1
11031	OCDD	3268-87-9	25.7 B	0.0310	10.5	1
11031	2378-TCDF	51207-31-9	0.128 JQ	0.0559	1.05	1
11031	12378-PeCDF	57117-41-6	0.0992 JBQ	0.0286	5.26	1
11031	23478-PeCDF	57117-31-4	0.165 JB	0.0276	5.26	1
11031	123478-HxCDF	70648-26-9	0.126 JBQ	0.0243	5.26	1
11031	123678-HxCDF	57117-44-9	0.102 JB	0.0223	5.26	1
11031	123789-HxCDF	72918-21-9	0.0240 U	0.0240	5.26	1
11031	234678-HxCDF	60851-34-5	0.130 JBQ	0.0220	5.26	1
11031	1234678-HpCDF	67562-39-4	0.777 JB	0.0181	5.26	1
11031	1234789-HpCDF	55673-89-7	0.0858 JB	0.0243	5.26	1
11031	OCDF	39001-02-0	1.23 JB	0.0256	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4605 SDG#: DX146-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 08:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0466 JQ	0.0403	1.05	1
11031	12378-PeCDD	40321-76-4	0.0967 JB	0.0377	5.25	1
11031	123478-HxCDD	39227-28-6	0.128 JQ	0.0384	5.25	1
11031	123678-HxCDD	57653-85-7	0.310 J	0.0411	5.25	1
11031	123789-HxCDD	19408-74-3	0.333 JQ	0.0666	5.25	1
11031	1234678-HpCDD	35822-46-9	5.75 B	0.0488	5.25	1
11031	OCDD	3268-87-9	40.2 B	0.0346	10.5	1
11031	2378-TCDF	51207-31-9	0.474 J	0.0693	1.05	1
11031	12378-PeCDF	57117-41-6	0.116 JBQ	0.0368	5.25	1
11031	23478-PeCDF	57117-31-4	0.0340 U	0.0340	5.25	1
11031	123478-HxCDF	70648-26-9	0.186 JBQ	0.0295	5.25	1
11031	123678-HxCDF	57117-44-9	0.175 JB	0.0278	5.25	1
11031	123789-HxCDF	72918-21-9	0.0383 JBQ	0.0314	5.25	1
11031	234678-HxCDF	60851-34-5	0.183 JBQ	0.0287	5.25	1
11031	1234678-HpCDF	67562-39-4	1.01 JB	0.0312	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0811 JBQ	0.0387	5.25	1
11031	OCDF	39001-02-0	1.63 JB	0.0310	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	47	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4606 SDG#: DX146-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 09:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0390 J	0.0340	1.02	1
11031	12378-PeCDD	40321-76-4	0.0447 JB	0.0271	5.09	1
11031	123478-HxCDD	39227-28-6	0.0473 J	0.0235	5.09	1
11031	123678-HxCDD	57653-85-7	0.0561 JQ	0.0265	5.09	1
11031	123789-HxCDD	19408-74-3	0.0453 JQ	0.0407	5.09	1
11031	1234678-HpCDD	35822-46-9	0.374 JB	0.0230	5.09	1
11031	OCDD	3268-87-9	2.44 JB	0.0205	10.2	1
11031	2378-TCDF	51207-31-9	0.0243 U	0.0243	1.02	1
11031	12378-PeCDF	57117-41-6	0.0527 JB	0.0135	5.09	1
11031	23478-PeCDF	57117-31-4	0.106 JBQ	0.0138	5.09	1
11031	123478-HxCDF	70648-26-9	0.0709 JBQ	0.0205	5.09	1
11031	123678-HxCDF	57117-44-9	0.0683 JBQ	0.0168	5.09	1
11031	123789-HxCDF	72918-21-9	0.0466 JBQ	0.0243	5.09	1
11031	234678-HxCDF	60851-34-5	0.0603 JBQ	0.0127	5.09	1
11031	1234678-HpCDF	67562-39-4	0.144 JBQ	0.0189	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0268 JBQ	0.0251	5.09	1
11031	OCDF	39001-02-0	0.212 JB	0.0345	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	47	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	44	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	44	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4607 SDG#: DX146-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 10:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	11.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0643 JQ	0.0266	1.11	1
11031	12378-PeCDD	40321-76-4	0.155 JB	0.0249	5.53	1
11031	123478-HxCDD	39227-28-6	0.0587 J	0.0240	5.53	1
11031	123678-HxCDD	57653-85-7	0.487 J	0.0241	5.53	1
11031	123789-HxCDD	19408-74-3	0.643 J	0.0234	5.53	1
11031	1234678-HpCDD	35822-46-9	0.662 JB	0.0255	5.53	1
11031	OCDD	3268-87-9	4.39 JB	0.0200	11.1	1
11031	2378-TCDF	51207-31-9	0.0416 JQ	0.0197	1.11	1
11031	12378-PeCDF	57117-41-6	0.156 JB	0.0135	5.53	1
11031	23478-PeCDF	57117-31-4	0.167 JB	0.0142	5.53	1
11031	123478-HxCDF	70648-26-9	0.149 JBQ	0.0185	5.53	1
11031	123678-HxCDF	57117-44-9	0.161 JB	0.0157	5.53	1
11031	123789-HxCDF	72918-21-9	0.0741 JB	0.0218	5.53	1
11031	234678-HxCDF	60851-34-5	0.0789 JBQ	0.0167	5.53	1
11031	1234678-HpCDF	67562-39-4	0.195 JBQ	0.0114	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0386 JBQ	0.0204	5.53	1
11031	OCDF	39001-02-0	0.329 JB	0.0331	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 11:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0285 U	0.0285	1.04	1
11031	12378-PeCDD	40321-76-4	0.0468 JBQ	0.0307	5.20	1
11031	123478-HxCDD	39227-28-6	0.0265 U	0.0265	5.20	1
11031	123678-HxCDD	57653-85-7	0.313 J	0.0270	5.20	1
11031	123789-HxCDD	19408-74-3	0.434 J	0.0283	5.20	1
11031	1234678-HpCDD	35822-46-9	0.395 JB	0.0262	5.20	1
11031	OCDD	3268-87-9	3.13 JB	0.0248	10.4	1
11031	2378-TCDF	51207-31-9	0.0243 J	0.0220	1.04	1
11031	12378-PeCDF	57117-41-6	0.0864 JB	0.0135	5.20	1
11031	23478-PeCDF	57117-31-4	0.110 JBQ	0.0140	5.20	1
11031	123478-HxCDF	70648-26-9	0.0320 JBQ	0.0263	5.20	1
11031	123678-HxCDF	57117-44-9	0.199 JBQ	0.0192	5.20	1
11031	123789-HxCDF	72918-21-9	0.0431 JBQ	0.0208	5.20	1
11031	234678-HxCDF	60851-34-5	0.0565 JB	0.0157	5.20	1
11031	1234678-HpCDF	67562-39-4	0.130 JB	0.0101	5.20	1
11031	1234789-HpCDF	55673-89-7	0.0163 U	0.0163	5.20	1
11031	OCDF	39001-02-0	0.221 JB	0.0380	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	39	26 - 152
13C12-123678-HxCDF	53	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 12:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0241 U	0.0241	1.02	1
11031	12378-PeCDD	40321-76-4	0.0449 JBQ	0.0226	5.09	1
11031	123478-HxCDD	39227-28-6	0.0415 JQ	0.0316	5.09	1
11031	123678-HxCDD	57653-85-7	0.239 J	0.0317	5.09	1
11031	123789-HxCDD	19408-74-3	0.187 JQ	0.0310	5.09	1
11031	1234678-HpCDD	35822-46-9	10.2 B	0.0505	5.09	1
11031	OCDD	3268-87-9	122 B	0.0526	10.2	1
11031	2378-TCDF	51207-31-9	0.0215 U	0.0215	1.02	1
11031	12378-PeCDF	57117-41-6	0.0365 JBQ	0.0140	5.09	1
11031	23478-PeCDF	57117-31-4	0.115 JBQ	0.0130	5.09	1
11031	123478-HxCDF	70648-26-9	0.0727 JBQ	0.0195	5.09	1
11031	123678-HxCDF	57117-44-9	0.0644 JBQ	0.0182	5.09	1
11031	123789-HxCDF	72918-21-9	0.0498 JBQ	0.0208	5.09	1
11031	234678-HxCDF	60851-34-5	0.0652 JBQ	0.0175	5.09	1
11031	1234678-HpCDF	67562-39-4	0.709 JB	0.0181	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0713 JB	0.0251	5.09	1
11031	OCDF	39001-02-0	1.77 JB	0.0299	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 13:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0427 U	0.0427	1.06	1
11031	12378-PeCDD	40321-76-4	0.0489 JBQ	0.0300	5.28	1
11031	123478-HxCDD	39227-28-6	0.0342 U	0.0342	5.28	1
11031	123678-HxCDD	57653-85-7	0.446 J	0.0332	5.28	1
11031	123789-HxCDD	19408-74-3	0.762 J	0.0307	5.28	1
11031	1234678-HpCDD	35822-46-9	2.70 JB	0.0493	5.28	1
11031	OCDD	3268-87-9	20.9 B	0.0287	10.6	1
11031	2378-TCDF	51207-31-9	0.0334 U	0.0334	1.06	1
11031	12378-PeCDF	57117-41-6	0.0636 JBQ	0.0168	5.28	1
11031	23478-PeCDF	57117-31-4	0.0637 JB	0.0180	5.28	1
11031	123478-HxCDF	70648-26-9	0.0579 JBQ	0.0257	5.28	1
11031	123678-HxCDF	57117-44-9	0.182 JB	0.0209	5.28	1
11031	123789-HxCDF	72918-21-9	0.110 JBQ	0.0243	5.28	1
11031	234678-HxCDF	60851-34-5	0.0422 JB	0.0198	5.28	1
11031	1234678-HpCDF	67562-39-4	0.364 JB	0.0153	5.28	1
11031	1234789-HpCDF	55673-89-7	0.102 JBQ	0.0267	5.28	1
11031	OCDF	39001-02-0	0.667 JB	0.0484	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 17:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0376 JQ	0.0366	1.02	1
11031	12378-PeCDD	40321-76-4	0.0258 U	0.0258	5.12	1
11031	123478-HxCDD	39227-28-6	0.0217 U	0.0217	5.12	1
11031	123678-HxCDD	57653-85-7	0.0787 JQ	0.0220	5.12	1
11031	123789-HxCDD	19408-74-3	0.127 JQ	0.0220	5.12	1
11031	1234678-HpCDD	35822-46-9	0.591 JBQ	0.0301	5.12	1
11031	OCDD	3268-87-9	2.78 JB	0.0195	10.2	1
11031	2378-TCDF	51207-31-9	0.0294 U	0.0294	1.02	1
11031	12378-PeCDF	57117-41-6	0.0278 JB	0.0159	5.12	1
11031	23478-PeCDF	57117-31-4	0.0980 JBQ	0.0169	5.12	1
11031	123478-HxCDF	70648-26-9	0.0426 JBQ	0.0168	5.12	1
11031	123678-HxCDF	57117-44-9	0.0179 JBQ	0.0140	5.12	1
11031	123789-HxCDF	72918-21-9	0.0730 JBQ	0.0155	5.12	1
11031	234678-HxCDF	60851-34-5	0.0712 JBQ	0.0134	5.12	1
11031	1234678-HpCDF	67562-39-4	0.191 JB	0.0102	5.12	1
11031	1234789-HpCDF	55673-89-7	0.0489 JBQ	0.0182	5.12	1
11031	OCDF	39001-02-0	0.252 JBQ	0.0377	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

- B* Detected in Method Blank
- U* Undetected
- J* Estimated concentration between Estimated Detection Limit and Minimum Level
- E* Exceeds calibration range
- C* Confirmed quantitation on secondary GC column
- Q* EMPC - Estimated Maximum Possible Concentration
- F* Interference is present

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 18:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426145-6426152				102		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11283001	Sample number(s): 6426145-6426152								
2378-TCDD	0.0290 U	0.0290	1.00	ng/kg	98		67-158		
12378-PeCDD	0.0326 J	0.0224	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0170 U	0.0170	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0176 U	0.0176	5.00	ng/kg	98		76-134		
123789-HxCDD	0.0169 U	0.0169	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.268 J	0.0221	5.00	ng/kg	96		70-140		
OCDD	0.392 J	0.0160	10.0	ng/kg	95		78-144		
2378-TCDF	0.0216 U	0.0216	1.00	ng/kg	98		75-158		
12378-PeCDF	0.0149 J	0.0125	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0319 J	0.0127	5.00	ng/kg	93		68-160		
123478-HxCDF	0.0314 J	0.0139	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0471 J	0.0114	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0484 J	0.0132	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0274 J	0.0107	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.129 J	0.00980	5.00	ng/kg	93		82-122		
1234789-HpCDF	0.0187 J	0.0142	5.00	ng/kg	96		78-138		
OCDF	0.121 J	0.0323	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426145-6426152					BKG: P426127 6.6	5.9	11	20
Batch number: 11283001	Sample number(s): 6426145-6426152					UNSPK: P422605			
2378-TCDD	96	101	67-158	4	25				
12378-PeCDD	99	99	70-142	1	25				
123478-HxCDD	97	100	70-164	2	25				
123678-HxCDD	94	98	76-134	4	25				
123789-HxCDD	96	97	64-162	0	25				
1234678-HpCDD	95	99	70-140	4	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	95	169*	78-144	54*	25				
2378-TCDF	94	96	75-158	2	25				
12378-PeCDF	95	95	80-134	0	25				
23478-PeCDF	94	94	68-160	1	25				
123478-HxCDF	93	95	72-134	2	25				
123678-HxCDF	93	92	84-130	1	25				
123789-HxCDF	94	95	78-130	0	25				
234678-HxCDF	94	94	70-156	1	25				
1234678-HpCDF	91	91	82-122	0	25				
1234789-HpCDF	96	96	78-138	1	25				
OCDF	94	94	63-170	0	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11283001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6426145	73	65	62	67	69	74
6426146	76	71	69	72	71	76
6426147	70	64	44	52	67	44
6426148	79	67	64	76	70	65
6426149	70	60	39	53	64	58
6426150	77	72	69	75	77	76
6426151	72	65	56	67	67	65
6426152	74	67	55	68	68	68
Blank	80	72	62	74	76	74
MS	75	68	16*	15*	70	73
MSD	78	70	41	44	74	75
OPR	69	65	22	24	67	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6426145	79	71	74	68	81	78
6426146	77	77	78	73	78	77
6426147	71	65	66	69	82	75
6426148	95	65	66	76	86	86
6426149	76	59	60	70	82	84
6426150	88	76	81	76	85	87
6426151	89	63	65	72	78	81
6426152	92	64	68	77	83	87
Blank	92	74	78	82	92	92
MS	27	67	69	73	78	75
MSD	65	69	72	77	91	85
OPR	43	69	70	74	81	80

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6426145	86	83	86	69	68	
6426146	47	86	89	77	71	
6426147	47	87	90	68	69	
6426148	85	89	93	71	76	
6426149	80	86	88	64	70	
6426150	85	92	98	76	76	
6426151	80	86	90	67	76	
6426152	82	90	97	69	78	
Blank	92	100	105	73	80	
MS	81	85	87	71	75	
MSD	96	91	94	74	79	
OPR	83	93	96	62	71	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1269323 sample#6426145-52

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 8010/6020/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-SS Sleeve			X	X									
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-SS Sleeve			X	X									
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-SS Sleeve			X	X									

Relinquished by: (Signature) 	Date/Time 09/30/2011 / 1630	Received for Laboratory by: (Signature) 	Laboratory: Lancaster Laboratories, Inc.
Received by: (Signature) 	Date/Time 10/10/11 / 0945	Airbill No.(s) 8767 9857 4445; 8767 9857 4456	

The surface code SS was added to the samples above per P.B. NLM 10/4/11

acct # 13013 Grp # 1369323 sample # 6426145-52

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 5 (SA5) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 8010/8205&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 GEM	*PCBs/PCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/940B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	*TPH-EPH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**th-NDMA EPA 1825C	**Ethenegels EPA 8330A	**Cyanide EPA 9012B	**Triphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-084-SA7-SB-0.0-1.0	9/30/11	1205	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
SL-113-SA7-SB-0.0-1.0	9/30/11	1406	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
SL-115-SA7-SB-0.5-1.5	9/30/11	1223	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X															
SL-132-SA7-SB-4.5	9/30/11	0819	SOIL	NONE	2-Encores									X													
SL-132-SA7-SB-4.0-5.0	9/30/11	0823	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X					
SL-132-SA7-SB-9.0	9/30/11	0814	SOIL	NONE	2-Encores									X													
SL-132-SA7-SB-8.5-9.5	9/30/11	0810	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X					
SL-180-SA7-SB-2.5	9/30/11	0947	SOIL	NONE	2-Encores									X													
SL-180-SA7-SB-2.0-3.0	9/30/11	0950	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X					
FB-SA7-SB-093011	9/30/11	1240	WATER	NONE	1-1 liter amber											X											
EB-SA7-SB-093011	9/30/11	1245	WATER	NONE	1-1 liter amber											X											
TB-092911	9/30/11	1430	SOIL	NONE	1-4 oz. jar											X											
TB-092911	9/30/11	1430	WATER	NONE	1-1 liter amber											X											
TB-092911	9/30/11	1430	WATER	NONE	2-40mL vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																		Laboratory:					
		09/30/2011 / 1630																				Lancaster Laboratories, Inc.					
Received by: (Signature)		Date/Time		Airbill No.(s)																							
		9/30/11 / 1630		8767 9857 4445; 8767 9857 4456																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/30/2011

Group Number: 1269114

SDG: DE258

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA8S-SS-0.0-0.5 Soil	6423855
SL-003-SA8S-SS-0.0-0.5 Soil	6423856
SL-003-SA8S-SS-0.0-0.5MS Soil	6423857
SL-003-SA8S-SS-0.0-0.5MSD Soil	6423858
SL-003-SA8S-SS-0.0-0.5DUP Soil	6423859
SL-003-SA8S-SS-0.0-0.5RL MS Soil	6423860
SL-003-SA8S-SS-0.0-0.5RL LCS Soil	6423861
SL-005-SA8S-SS-0.0-0.5 Soil	6423862
SL-007-SA8S-SS-0.0-0.5 Soil	6423863
SL-013-SA8S-SS-0.0-0.5 Soil	6423864
SL-014-SA8S-SS-0.0-0.5 Soil	6423865
SL-015-SA8S-SS-0.0-0.5 Soil	6423866
SL-024-SA8S-SS-0.0-0.5 Soil	6423867
DUP01-SA8S-QC-092911 Soil	6423868
SL-126-SA7-SB-4.0-5.0 Soil	6423869
SL-127-SA7-SB-4.0-5.0 Soil	6423870
SL-177-SA7-SB-3.0-4.0 Soil	6423871
TB-092911 Water	6423872

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

Attn: Todd Burgess

COPY TO
1 COPY TO Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	180	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71	U 0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35	U 0.35	1.8	1
10138	Anthracene	120-12-7	0.35	U 0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71	U 0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.87	J 0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	3.8	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.91	J 0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72	J 0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	16	J 6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4	U 6.4	19	1
10138	Chrysene	218-01-9	1.1	J 0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71	U 0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4	U 6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4	U 6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.4	19	1
10138	Fluoranthene	206-44-0	1.3	J 0.71	1.8	1
10138	Fluorene	86-73-7	0.71	U 0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71	U 0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71	U 0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71	U 0.71	1.8	1
10138	Naphthalene	91-20-3	0.71	U 0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71	U 0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4	U 6.4	19	1
10138	Phenanthrene	85-01-8	0.71	U 0.71	1.8	1
10138	Pyrene	129-00-0	1.2	J 0.71	1.8	1

The following compounds were detected in the method blank at the respective concentrations of:

bis(2-ethylhexyl)phthalate 7.6 ug/kg

benzo(g,h,i)perylene 1.5 ug/kg

These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.8
10401	Dalapon	75-99-0	4.7	U 4.7	9.5
10401	2,4-DB	94-82-6	0.66	U 0.66	1.8
10401	Dicamba	1918-00-9	0.42	U 0.42	1.3
10401	Dinoseb	88-85-7	0.85	U 0.85	2.5

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-DP (Dichlorprop)	120-36-5	0.85 U	0.85	1.8	1
10401	MCPA	94-74-6	1,900	81	270	1
10401	MCPP (Mecoprop)	93-65-2	80 U	80	270	1
10401	2,4,5-T	93-76-5	0.28 U	0.28	0.28	1
10401	2,4,5-TP	93-72-1	0.080 U	0.080	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPA was not detected in the reextract.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.070 U	0.070	0.18	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.18	1
01363	Beta BHC	319-85-7	0.064 U	0.064	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.072 J	0.036	0.18	1
01363	Chlordane	57-74-9	1.5 J	0.85	3.6	1
01363	p,p-DDD	72-54-8	0.52 U	0.52	0.52	1
01363	p,p-DDE	72-55-9	0.85	0.070	0.36	1
01363	p,p-DDT	50-29-3	0.82	0.070	0.36	1
01363	Delta BHC	319-86-8	0.44	0.038	0.18	1
01363	Dieldrin	60-57-1	0.13 U	0.13	0.36	1
01363	Endosulfan I	959-98-8	0.047 U	0.047	0.18	1
01363	Endosulfan II	33213-65-9	0.070 U	0.070	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.070 U	0.070	0.36	1
01363	Endrin	72-20-8	0.070 U	0.070	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.095 U	0.095	0.36	1
01363	Endrin Ketone	53494-70-5	0.070 U	0.070	0.36	1
01363	Heptachlor	76-44-8	0.064 U	0.064	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.047 U	0.047	0.18	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.8	1
01363	Mirex	2385-85-5	0.19 U	0.19	0.36	1
01363	Toxaphene	8001-35-2	5.3 U	5.3	7.0	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix. The DCB surrogate recovery is above the client specified limits of 20-120%, however it is within the laboratory's in-house statistical limits of 45-150%.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	2.8 J	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	3.2	0.35	1.8	1
10225	PCB-1260	11096-82-5	2.2	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,500	6.35	21.0	1
07914	Boron	7440-42-8	14.5	0.378	5.25	1
01650	Calcium	7440-70-2	76,800	13.1	105	5
01654	Iron	7439-89-6	37,700	13.7	105	5
01656	Lithium	7439-93-2	25.3	0.65	2.1	1
01657	Magnesium	7439-95-4	7,650	0.462	10.5	1
06958	Manganese	7439-96-5	337	0.0378	0.525	1
10145	Phosphorus	7723-14-0	638	0.367	10.5	1
01662	Potassium	7440-09-7	5,170	11.9	52.5	1
01667	Sodium	7440-23-5	118	6.25	105	1
07968	Strontium	7440-24-6	125	0.0262	0.525	1
06969	Tin	7440-31-5	2.14 J	0.336	10.5	1
06970	Titanium	7440-32-6	1,350	0.0724	1.02	1
10146	Zirconium	7440-67-7	2.86 J	0.483	5.25	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.225	0.0755	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.60	0.0816	0.408	2
06126	Barium	7440-39-3	138	0.108	0.408	2
06127	Beryllium	7440-41-7	0.853	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.389	0.0449	0.102	2
06131	Chromium	7440-47-3	47.4	0.122	0.408	2
06132	Cobalt	7440-48-4	12.2	0.0204	0.102	2
06133	Copper	7440-50-8	23.5	0.0816	0.408	2
06135	Lead	7439-92-1	18.2	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.461	0.0510	0.102	2
06139	Nickel	7440-02-0	25.7	0.102	0.408	2
06141	Selenium	7782-49-2	0.489	0.0591	0.408	2
06142	Silver	7440-22-4	0.0357 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.420	0.0306	0.102	2
06148	Vanadium	7440-62-2	86.2	0.0224	0.102	2
06149	Zinc	7440-66-6	90.9	0.571	3.06	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0132 J	0.0073	0.103	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.8	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.42 J	0.21	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.43	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 04:38	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 20:04	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 02:10	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 17:42	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:06	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:53	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/13/2011 11:53	Eric L Eby	5
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:16	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:08	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:42	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:19	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 14:28	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:06	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 12:52	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423855
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5801 SDG#: DE258-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69	U 0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	20	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.9	J 6.2	19	1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19	1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7	1
10138	Pyrene	129-00-0	0.69	U 0.69	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U	4.5	9.3	1
10401	2,4-DB	94-82-6	0.64	U	0.64	1.8	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.83	U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U	0.83	1.8	1
10401	MCPA	94-74-6	130	U	130	260	1
10401	MCPP (Mecoprop)	93-65-2	280		77	260	1
10401	2,4,5-T	93-76-5	0.085	U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.13	U	0.13	0.18	

The LCS data is outside the QC limits for various compounds. Results from the

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPP was not detected in the reextract..						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	0.82 U	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.48	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.42 U	0.42	0.42	1
01363	Delta BHC	319-86-8	0.059 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.28 U	0.28	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	7.2 U	7.2	7.2	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,900	6.19	20.5	1
07914	Boron	7440-42-8	11.2	0.369	5.12	1
01650	Calcium	7440-70-2	144,000	12.8	102	5
01654	Iron	7439-89-6	20,900	2.67	20.5	1
01656	Lithium	7439-93-2	18.5	0.63	2.0	1
01657	Magnesium	7439-95-4	6,100	0.451	10.2	1
06958	Manganese	7439-96-5	278	0.0369	0.512	1
10145	Phosphorus	7723-14-0	452	0.358	10.2	1
01662	Potassium	7440-09-7	3,130	11.6	51.2	1
01667	Sodium	7440-23-5	121	6.09	102	1
07968	Strontium	7440-24-6	156	0.0256	0.512	1
06969	Tin	7440-31-5	1.94 J	0.328	10.2	1
06970	Titanium	7440-32-6	832	0.0706	0.994	1
10146	Zirconium	7440-67-7	3.40 J	0.471	5.12	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.206	0.0750	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.79	0.0811	0.406	2
06126	Barium	7440-39-3	93.2	0.107	0.406	2
06127	Beryllium	7440-41-7	0.656	0.0162	0.101	2
06128	Cadmium	7440-43-9	0.300	0.0446	0.101	2
06131	Chromium	7440-47-3	29.9	0.122	0.406	2
06132	Cobalt	7440-48-4	9.60	0.0203	0.101	2
06133	Copper	7440-50-8	18.8	0.0811	0.406	2
06135	Lead	7439-92-1	20.8	0.0103	0.203	2
06138	Molybdenum	7439-98-7	0.322	0.0507	0.101	2
06139	Nickel	7440-02-0	17.1	0.101	0.406	2
06141	Selenium	7782-49-2	0.252 J	0.0588	0.406	2
06142	Silver	7440-22-4	0.0229 J	0.0144	0.101	2
06145	Thallium	7440-28-0	0.257	0.0304	0.101	2
06148	Vanadium	7440-62-2	51.6	0.0223	0.101	2
06149	Zinc	7440-66-6	55.1	0.568	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0184 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.41 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.81	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 03:23	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 14:38	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 00:48	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 17:56	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:25	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:11	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423856
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 10:50	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:42	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:12	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:12	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:12	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:12	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:20	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 11:49	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 11:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 13:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	17	170	1
04688	Acenaphthylene	208-96-8	1,700	17	170	1
04688	Aniline	62-53-3	1,400	170	520	1
04688	Anthracene	120-12-7	1,800	17	170	1
04688	Benziidine	92-87-5	3,200	J 1,200	3,400	1
04688	Benzo(a)anthracene	56-55-3	1,800	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,900	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,800	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	17	170	1
04688	Benzoic acid	65-85-0	220	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,600	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	2,100	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,700	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,800	17	170	1
04688	Carbazole	86-74-8	1,700	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	34	170	1
04688	4-Chloroaniline	106-47-8	1,100	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,700	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,500	17	170	1
04688	2-Chlorophenol	95-57-8	1,700	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	34	170	1
04688	Chrysene	218-01-9	1,900	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,900	17	170	1
04688	Dibenzofuran	132-64-9	1,600	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	1,100	100	340	1
04688	2,4-Dichlorophenol	120-83-2	1,800	17	170	1
04688	Diethylphthalate	84-66-2	1,700	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,700	34	170	1
04688	3,5-Dimethylphenol	108-68-9	1,800	34	170	1
04688	Dimethylphthalate	131-11-3	1,700	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	560	170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	34	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,800	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	17	340	1
04688	Fluoranthene	206-44-0	1,900	17	170	1
04688	Fluorene	86-73-7	1,700	17	170	1
04688	Hexachlorobenzene	118-74-1	2,100	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,900	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	4,000	170	520	1
04688	Hexachloroethane	67-72-1	1,600	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,900	17	170	1
04688	Isophorone	78-59-1	1,700	17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,600	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,600	17	170	1
04688	2-Methylphenol	95-48-7	1,700	34	170	1
04688	4-Methylphenol	106-44-5	1,700	34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	17	170	1
04688	2-Nitroaniline	88-74-4	1,500	17	170	1
04688	3-Nitroaniline	99-09-2	1,700	34	170	1
04688	4-Nitroaniline	100-01-6	1,200	69	170	1
04688	Nitrobenzene	98-95-3	1,700	17	170	1
04688	2-Nitrophenol	88-75-5	1,500	17	170	1
04688	4-Nitrophenol	100-02-7	1,500	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	34	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,500	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,700	17	170	1
04688	Pentachlorophenol	87-86-5	1,200	170	520	1
04688	Phenanthrene	85-01-8	1,800	17	170	1
04688	Phenol	108-95-2	1,700	17	170	1
04688	Pyrene	129-00-0	1,700	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,900	34	170	1
	The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.69	1.7	1
10138	Acenaphthylene	208-96-8	32	0.34	1.7	1
10138	Anthracene	120-12-7	34	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	34	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	34	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	31	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	31	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	66	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	39	6.2	19	1
10138	Chrysene	218-01-9	33	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	35	0.69	1.7	1
10138	Diethylphthalate	84-66-2	36	6.2	19	1
10138	Dimethylphthalate	131-11-3	35	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	43	6.2	19	1
10138	Fluoranthene	206-44-0	35	0.69	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Fluorene	86-73-7	34	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	34	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	31	0.69	1.7	1
10138	Naphthalene	91-20-3	31	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	33	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	40	6.2	19	1
10138	Phenanthrene	85-01-8	33	0.69	1.7	1
10138	Pyrene	129-00-0	34	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	6.4	1.2	3.7	1
10401	Dalapon	75-99-0	11	4.5	9.2	1
10401	2,4-DB	94-82-6	6.7	0.64	1.7	1
10401	Dicamba	1918-00-9	0.73 J	0.41	1.2	1
10401	Dinoseb	88-85-7	1.2 J	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	9.6	0.82	1.7	1
10401	MCPA	94-74-6	1,600	78	260	1
10401	MCPP (Mecoprop)	93-65-2	610	77	260	1
10401	2,4,5-T	93-76-5	0.60	0.084	0.18	1
10401	2,4,5-TP	93-72-1	0.13 J	0.078	0.18	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.19	0.068	0.18	1
01363	Alpha BHC	319-84-6	0.19	0.035	0.18	1
01363	Beta BHC	319-85-7	0.20	0.062	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.19	0.035	0.18	1
01363	Chlordane	57-74-9	0.83 U	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.50	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.97	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.87	0.068	0.35	1
01363	Delta BHC	319-86-8	0.28	0.037	0.18	1
01363	Dieldrin	60-57-1	0.35	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.14 J	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.53	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Endrin	72-20-8	0.41	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.51	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.38	0.068	0.35	1
01363	Heptachlor	76-44-8	0.21	0.062	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.24	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.3	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	12 U	12	12	1

The sample was injected after instrument maintenance and a new calibration.
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	12	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	14	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,300	6.26	20.7	1
07914	Boron	7440-42-8	223	0.372	5.17	1
01650	Calcium	7440-70-2	155,000	12.9	103	5
01654	Iron	7439-89-6	21,700	2.70	20.7	1
01656	Lithium	7439-93-2	123	0.64	2.1	1
01657	Magnesium	7439-95-4	6,410	0.455	10.3	1
06958	Manganese	7439-96-5	392	0.0372	0.517	1
10145	Phosphorus	7723-14-0	554	0.362	10.3	1
01662	Potassium	7440-09-7	4,660	11.7	51.7	1
01667	Sodium	7440-23-5	1,150	6.15	103	1
07968	Strontium	7440-24-6	252	0.0259	0.517	1
06969	Tin	7440-31-5	335	0.331	10.3	1
06970	Titanium	7440-32-6	1,150	0.0727	1.02	1
10146	Zirconium	7440-67-7	103	0.476	5.17	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.530	0.0743	0.201	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	10.6	0.0803	0.402	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06126	Barium	7440-39-3	113	0.106	0.402	2
06127	Beryllium	7440-41-7	1.56	0.0161	0.100	2
06128	Cadmium	7440-43-9	1.42	0.0442	0.100	2
06131	Chromium	7440-47-3	46.8	0.120	0.402	2
06132	Cobalt	7440-48-4	64.8	0.0201	0.100	2
06133	Copper	7440-50-8	31.8	0.0803	0.402	2
06135	Lead	7439-92-1	24.4	0.0102	0.201	2
06138	Molybdenum	7439-98-7	12.0	0.0502	0.100	2
06139	Nickel	7440-02-0	30.7	0.100	0.402	2
06141	Selenium	7782-49-2	2.24	0.0582	0.402	2
06142	Silver	7440-22-4	11.1	0.0143	0.100	2
06145	Thallium	7440-28-0	0.747	0.0301	0.100	2
06148	Vanadium	7440-62-2	76.1	0.0221	0.100	2
06149	Zinc	7440-66-6	69.7	0.562	3.01	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.177	0.0073	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	7.6	0.84	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	584	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	36.9	1.0	5.2	5
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 03:48	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 15:10	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 01:15	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:11	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 20:44	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:29	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:03	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:55	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:23	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 14:16	Ashley M Adams	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423857
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 12:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:02	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,500	17	170	1
04688	Acenaphthylene	208-96-8	1,500	17	170	1
04688	Aniline	62-53-3	970	170	520	1
04688	Anthracene	120-12-7	1,600	17	170	1
04688	Benziidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzo(a)anthracene	56-55-3	1,600	17	170	1
04688	Benzo(a)pyrene	50-32-8	1,700	17	170	1
04688	Benzo(b)fluoranthene	205-99-2	1,600	17	170	1
04688	Benzo(g,h,i)perylene	191-24-2	1,700	17	170	1
04688	Benzo(k)fluoranthene	207-08-9	1,600	17	170	1
04688	Benzoic acid	65-85-0	200	J 170	520	1
04688	Benzyl alcohol	100-51-6	1,800	170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	17	170	1
04688	Butylbenzylphthalate	85-68-7	1,500	17	170	1
04688	Di-n-butylphthalate	84-74-2	1,600	17	170	1
04688	Carbazole	86-74-8	1,500	17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	1,400	34	170	1
04688	4-Chloroaniline	106-47-8	550	69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,600	17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,300	17	170	1
04688	2-Chloronaphthalene	91-58-7	1,400	17	170	1
04688	2-Chlorophenol	95-57-8	1,600	17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,500	34	170	1
04688	Chrysene	218-01-9	1,600	17	170	1
04688	Dibenz(a,h)anthracene	53-70-3	1,700	17	170	1
04688	Dibenzofuran	132-64-9	1,500	17	170	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	17	170	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	17	170	1
04688	1,4-Dichlorobenzene	106-46-7	1,400	17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	700	100	340	1
04688	2,4-Dichlorophenol	120-83-2	1,600	17	170	1
04688	Diethylphthalate	84-66-2	1,500	17	170	1
04688	2,4-Dimethylphenol	105-67-9	1,600	34	170	1
04688	3,5-Dimethylphenol	108-68-9	1,600	34	170	1
04688	Dimethylphthalate	131-11-3	1,500	17	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	720	170	520	1
04688	2,4-Dinitrophenol	51-28-5	700	J 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	1,500	34	170	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	1,700	17	170	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,600	17	340	1
04688	Fluoranthene	206-44-0	1,600	17	170	1
04688	Fluorene	86-73-7	1,500	17	170	1
04688	Hexachlorobenzene	118-74-1	1,900	17	170	1
04688	Hexachlorobutadiene	87-68-3	1,800	69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	4,000	170	520	1
04688	Hexachloroethane	67-72-1	1,500	17	170	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,700	17	170	1
04688	Isophorone	78-59-1	1,500	17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,400	17	170	1
04688	2-Methylnaphthalene	91-57-6	1,500	17	170	1
04688	2-Methylphenol	95-48-7	1,500	34	170	1
04688	4-Methylphenol	106-44-5	1,500	34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,400	17	170	1
04688	2-Nitroaniline	88-74-4	1,400	17	170	1
04688	3-Nitroaniline	99-09-2	1,300	34	170	1
04688	4-Nitroaniline	100-01-6	1,000	69	170	1
04688	Nitrobenzene	98-95-3	1,600	17	170	1
04688	2-Nitrophenol	88-75-5	1,500	17	170	1
04688	4-Nitrophenol	100-02-7	1,400	170	520	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	34	170	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,600	17	170	1
04688	Pentachlorophenol	87-86-5	1,500	170	520	1
04688	Phenanthrene	85-01-8	1,500	17	170	1
04688	Phenol	108-95-2	1,600	17	170	1
04688	Pyrene	129-00-0	1,500	17	170	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	34	170	1
	The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.					
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	29	0.69	1.7	1
10138	Acenaphthylene	208-96-8	28	0.34	1.7	1
10138	Anthracene	120-12-7	30	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	29	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	30	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	19	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	30	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	51	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	39	6.2	19	1
10138	Chrysene	218-01-9	30	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	23	0.69	1.7	1
10138	Diethylphthalate	84-66-2	34	6.2	19	1
10138	Dimethylphthalate	131-11-3	31	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	51	6.2	19	1
10138	Fluoranthene	206-44-0	32	0.69	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Fluorene	86-73-7	31	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	22	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	28	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	27	0.69	1.7	1
10138	Naphthalene	91-20-3	28	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	28	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	40	6.2	19	1
10138	Phenanthrene	85-01-8	29	0.69	1.7	1
10138	Pyrene	129-00-0	29	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results.						
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	6.6	1.2	3.7	1
10401	Dalapon	75-99-0	8.9 J	4.5	9.3	1
10401	2,4-DB	94-82-6	5.5	0.64	1.8	1
10401	Dicamba	1918-00-9	0.72 J	0.41	1.2	1
10401	Dinoseb	88-85-7	5.2	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	9.9	0.83	1.8	1
10401	MCPA	94-74-6	1,800	78	260	1
10401	MCPP (Mecoprop)	93-65-2	660	77	260	1
10401	2,4,5-T	93-76-5	0.40	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.36	0.078	0.18	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.19	0.068	0.18	1
01363	Alpha BHC	319-84-6	0.18	0.035	0.18	1
01363	Beta BHC	319-85-7	0.18	0.062	0.18	1
01363	Gamma BHC - Lindane	58-89-9	0.19	0.035	0.18	1
01363	Chlordane	57-74-9	0.83 U	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.48	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.91	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.81	0.068	0.35	1
01363	Delta BHC	319-86-8	0.28	0.037	0.18	1
01363	Dieldrin	60-57-1	0.32 J	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.18	0.046	0.18	1
01363	Endosulfan II	33213-65-9	0.47	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.34 J	0.068	0.35	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Endrin	72-20-8	0.39	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.47	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.20	0.062	0.18	1
01363	Heptachlor Epoxide	1024-57-3	0.24	0.035	0.18	1
01363	Methoxychlor	72-43-5	2.1	0.35	1.7	1
01363	Mirex	2385-85-5	0.19 J	0.068	0.35	1
01363	Toxaphene	8001-35-2	8.6 U	8.6	8.6	1

The sample was injected after instrument maintenance and a new calibration.
Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	14	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	16	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

Metals		SW-846 6010B	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,300	6.19	20.5	1
07914	Boron	7440-42-8	219	0.369	5.12	1
01650	Calcium	7440-70-2	148,000	12.8	102	5
01654	Iron	7439-89-6	21,600	2.67	20.5	1
01656	Lithium	7439-93-2	123	0.63	2.0	1
01657	Magnesium	7439-95-4	6,700	0.451	10.2	1
06958	Manganese	7439-96-5	336	0.0369	0.512	1
10145	Phosphorus	7723-14-0	561	0.358	10.2	1
01662	Potassium	7440-09-7	4,880	11.6	51.2	1
01667	Sodium	7440-23-5	1,130	6.09	102	1
07968	Strontium	7440-24-6	245	0.0256	0.512	1
06969	Tin	7440-31-5	328	0.328	10.2	1
06970	Titanium	7440-32-6	1,130	0.0706	0.994	1
10146	Zirconium	7440-67-7	102	0.471	5.12	1

		SW-846 6020	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.650	0.0750	0.203	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	11.0	0.0811	0.406	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06126	Barium	7440-39-3	126	0.107	0.406	2
06127	Beryllium	7440-41-7	1.60	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.63	0.0446	0.101	2
06131	Chromium	7440-47-3	51.0	0.122	0.406	2
06132	Cobalt	7440-48-4	75.1	0.0203	0.101	2
06133	Copper	7440-50-8	35.7	0.0811	0.406	2
06135	Lead	7439-92-1	28.5	0.0103	0.203	2
06138	Molybdenum	7439-98-7	13.9	0.0507	0.101	2
06139	Nickel	7440-02-0	35.2	0.101	0.406	2
06141	Selenium	7782-49-2	2.49	0.0588	0.406	2
06142	Silver	7440-22-4	12.9	0.0144	0.101	2
06145	Thallium	7440-28-0	0.841	0.0304	0.101	2
06148	Vanadium	7440-62-2	80.5	0.0223	0.101	2
06149	Zinc	7440-66-6	73.4	0.568	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.175	0.0069	0.0979	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 04:13	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 19:33	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 01:42	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:26	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:03	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423858
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:33	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:59	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:24	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,300	6.02	19.9	1
07914	Boron	7440-42-8	10.9	0.358	4.97	1
01650	Calcium	7440-70-2	139,000	12.4	99.4	5
01654	Iron	7439-89-6	24,600	2.60	19.9	1
01656	Lithium	7439-93-2	18.3	0.62	2.0	1
01657	Magnesium	7439-95-4	6,120	0.438	9.94	1
06958	Manganese	7439-96-5	313	0.0358	0.497	1
10145	Phosphorus	7723-14-0	460	0.348	9.94	1
01662	Potassium	7440-09-7	3,150	11.2	49.7	1
01667	Sodium	7440-23-5	112	5.92	99.4	1
07968	Strontium	7440-24-6	154	0.0249	0.497	1
06969	Tin	7440-31-5	1.95 J	0.318	9.94	1
06970	Titanium	7440-32-6	844	0.0727	1.02	1
10146	Zirconium	7440-67-7	4.19 J	0.457	4.97	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.232	0.0736	0.199	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	9.15	0.0795	0.398	2
06126	Barium	7440-39-3	111	0.105	0.398	2
06127	Beryllium	7440-41-7	0.794	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.364	0.0438	0.0994	2
06131	Chromium	7440-47-3	35.1	0.119	0.398	2
06132	Cobalt	7440-48-4	9.48	0.0199	0.0994	2
06133	Copper	7440-50-8	23.7	0.0795	0.398	2
06135	Lead	7439-92-1	23.8	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.455	0.0497	0.0994	2
06139	Nickel	7440-02-0	20.4	0.0994	0.398	2
06141	Selenium	7782-49-2	0.303 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0176 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.313	0.0298	0.0994	2
06148	Vanadium	7440-62-2	64.9	0.0219	0.0994	2
06149	Zinc	7440-66-6	67.1	0.557	2.98	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0131 J	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.83 U	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.53 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.82	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:26	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 10:59	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 16:50	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423859
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:22	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 12:02	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 12:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:38	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 2

Sample Description: SL-003-SA8S-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423860
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	3.9 J	3.8	9.3	1
10401	2,4-DB	94-82-6	1.6 J	0.64	1.8	1
10401	Dicamba	1918-00-9	0.46 J	0.41	1.2	1
10401	Dinoseb	88-85-7	1.3 J	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	1.6 J	0.83	1.8	1
10401	MCPA	94-74-6	890	79	260	1
10401	MCPP (Mecoprop)	93-65-2	120 J	78	260	1
10401	2,4,5-T	93-76-5	0.45	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.43	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.087 J	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.084 J	0.035	0.17	1
01363	Beta BHC	319-85-7	0.10 J	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.094 J	0.035	0.17	1
01363	Chlordane	57-74-9	1.7 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.23 J	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.64	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.50	0.068	0.35	1
01363	Delta BHC	319-86-8	0.14 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.16 J	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.16 J	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.20 J	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.29 J	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.22 J	0.068	0.35	1
01363	Heptachlor	76-44-8	0.10 J	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.074 J	0.035	0.17	1
01363	Methoxychlor	72-43-5	1.0 J	0.35	1.7	1
01363	Mirex	2385-85-5	0.30 J	0.068	0.35	1
01363	Toxaphene	8001-35-2	7.2 U	7.2	7.2	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.2 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	1.7 J	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423860
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	3.2	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 03:32	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:40	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:40	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423861
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Herbicides						
	SW-846 8151A		ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	5.0	1.2	3.6	1
10401	Dalapon	75-99-0	3.9 J	3.5	9.0	1
10401	2,4-DB	94-82-6	1.7	0.62	1.7	1
10401	Dicamba	1918-00-9	0.42 J	0.40	1.2	1
10401	Dinoseb	88-85-7	0.61 J	0.60	2.4	1
10401	2,4-DP (Dichlorprop)	120-36-5	2.3	0.80	1.7	1
10401	MCPA	94-74-6	160 J	76	250	1
10401	MCPP (Mecoprop)	93-65-2	120 J	75	250	1
10401	2,4,5-T	93-76-5	0.21	0.082	0.17	1
10401	2,4,5-TP	93-72-1	0.13 J	0.075	0.17	1
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.066 U	0.066	0.17	1
01363	Alpha BHC	319-84-6	0.088 J	0.034	0.17	1
01363	Beta BHC	319-85-7	0.12 J	0.060	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.093 J	0.034	0.17	1
01363	Chlordane	57-74-9	0.80 U	0.80	3.4	1
01363	p,p-DDD	72-54-8	0.18 J	0.066	0.34	1
01363	p,p-DDE	72-55-9	0.16 J	0.066	0.34	1
01363	p,p-DDT	50-29-3	0.16 J	0.066	0.34	1
01363	Delta BHC	319-86-8	0.11 J	0.036	0.17	1
01363	Dieldrin	60-57-1	0.12 J	0.066	0.34	1
01363	Endosulfan I	959-98-8	0.044 U	0.044	0.17	1
01363	Endosulfan II	33213-65-9	0.11 J	0.066	0.34	1
01363	Endosulfan Sulfate	1031-07-8	0.12 J	0.066	0.34	1
01363	Endrin	72-20-8	0.14 J	0.066	0.34	1
01363	Endrin Aldehyde	7421-93-4	0.12 J	0.066	0.34	1
01363	Endrin Ketone	53494-70-5	0.14 J	0.066	0.34	1
01363	Heptachlor	76-44-8	0.094 J	0.060	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.068 J	0.034	0.17	1
01363	Methoxychlor	72-43-5	0.78 J	0.34	1.7	1
01363	Mirex	2385-85-5	0.066 U	0.066	0.34	1
01363	Toxaphene	8001-35-2	2.2 U	2.2	6.6	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.4 J	0.33	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423861
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5802 SDG#: DE258-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.6 J	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112910026A	10/21/2011 03:55	Melissa McDermott	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 18:55	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 21:59	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	2	112910026A	10/19/2011 10:45	Kelli M Barto	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68	U 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.68	U 0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68	U 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1	U 6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1	U 6.1	18	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1	U 6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1	U 6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	19	U 6.1	18	1
10138	Fluoranthene	206-44-0	0.68	U 0.68	1.7	1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68	U 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1	U 6.1	18	1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7	1
10138	Pyrene	129-00-0	0.68	U 0.68	1.7	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U	1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U	4.5	9.2	1
10401	2,4-DB	94-82-6	0.90	U	0.90	1.7	1
10401	Dicamba	1918-00-9	0.41	U	0.41	1.2	1
10401	Dinoseb	88-85-7	0.82	U	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U	0.82	1.7	1
10401	MCPA	94-74-6	78	U	78	260	1
10401	MCPP (Mecoprop)	93-65-2	77	U	77	260	1
10401	2,4,5-T	93-76-5	0.22		0.084	0.17	1
10401	2,4,5-TP	93-72-1	0.077	U	0.077	0.17	

The LCS data is outside the QC limits for various compounds. Results from the

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	0.82 U	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	0.068 U	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.068 U	0.068	0.35	1
01363	Delta BHC	319-86-8	0.037 U	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.068 U	0.068	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.068 U	0.068	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.8	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,100	6.16	20.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	8.92	0.366	5.09	1
01650	Calcium	7440-70-2	239,000	12.7	102	5
01654	Iron	7439-89-6	11,100	2.66	20.4	1
01656	Lithium	7439-93-2	12.7	0.63	2.0	1
01657	Magnesium	7439-95-4	3,930	0.448	10.2	1
06958	Manganese	7439-96-5	167	0.0366	0.509	1
10145	Phosphorus	7723-14-0	228	0.356	10.2	1
01662	Potassium	7440-09-7	1,460	11.5	50.9	1
01667	Sodium	7440-23-5	120	6.05	102	1
07968	Strontium	7440-24-6	182	0.0254	0.509	1
06969	Tin	7440-31-5	1.44 J	0.326	10.2	1
06970	Titanium	7440-32-6	542	0.0722	1.02	1
10146	Zirconium	7440-67-7	2.30 J	0.468	5.09	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.123 J	0.0753	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.49	0.0814	0.407	2
06126	Barium	7440-39-3	82.4	0.108	0.407	2
06127	Beryllium	7440-41-7	0.478	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.232	0.0448	0.102	2
06131	Chromium	7440-47-3	23.8	0.122	0.407	2
06132	Cobalt	7440-48-4	4.85	0.0204	0.102	2
06133	Copper	7440-50-8	9.34	0.0806	0.403	2
06135	Lead	7439-92-1	6.61	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.136	0.0509	0.102	2
06139	Nickel	7440-02-0	9.79	0.102	0.407	2
06141	Selenium	7782-49-2	0.143 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0144 U	0.0144	0.102	2
06145	Thallium	7440-28-0	0.123	0.0305	0.102	2
06148	Vanadium	7440-62-2	37.4	0.0224	0.102	2
06149	Zinc	7440-66-6	27.9	0.570	3.05	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0987	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.81 U	0.81	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.2 U	9.2	30.8	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.13	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	2.7	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:03	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 20:36	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 04:27	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:09	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:18	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 11:57	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423862
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5803 SDG#: DE258-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:21	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:20	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:26	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:29	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 14:52	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	20	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.4	1
10401	2,4-DB	94-82-6	0.65	U	0.65	1.8	1
10401	Dicamba	1918-00-9	0.42	U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.83	U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83	U	0.83	1.8	1
10401	MCPA	94-74-6	79	U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U	78	260	1
10401	2,4,5-T	93-76-5	0.10	U	0.10	0.18	1
10401	2,4,5-TP	93-72-1	0.078	U	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method.

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.35	1
01363	p,p-DDE	72-55-9	0.17 U	0.17	0.35	1
01363	p,p-DDT	50-29-3	0.19 U	0.19	0.35	1
01363	Delta BHC	319-86-8	0.045 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.35 U	0.35	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.35	1
01363	Toxaphene	8001-35-2	4.7 U	4.7	6.9	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,700	6.27	20.7	1
07914	Boron	7440-42-8	9.04	0.373	5.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01650	Calcium	7440-70-2	242,000	12.9	104	5
01654	Iron	7439-89-6	13,600	2.70	20.7	1
01656	Lithium	7439-93-2	15.3	0.64	2.1	1
01657	Magnesium	7439-95-4	4,330	0.456	10.4	1
06958	Manganese	7439-96-5	180	0.0373	0.518	1
10145	Phosphorus	7723-14-0	279	0.362	10.4	1
01662	Potassium	7440-09-7	1,640	11.7	51.8	1
01667	Sodium	7440-23-5	117	6.16	104	1
07968	Strontium	7440-24-6	142	0.0259	0.518	1
06969	Tin	7440-31-5	1.50 J	0.331	10.4	1
06970	Titanium	7440-32-6	674	0.0743	1.05	1
10146	Zirconium	7440-67-7	2.00 J	0.476	5.18	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.140 J	0.0766	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.87	0.0829	0.414	2
06126	Barium	7440-39-3	88.6	0.110	0.414	2
06127	Beryllium	7440-41-7	0.418	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.225	0.0456	0.104	2
06131	Chromium	7440-47-3	23.8	0.124	0.414	2
06132	Cobalt	7440-48-4	6.87	0.0207	0.104	2
06133	Copper	7440-50-8	12.6	0.0829	0.414	2
06135	Lead	7439-92-1	10.9	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.277	0.0518	0.104	2
06139	Nickel	7440-02-0	13.2	0.104	0.414	2
06141	Selenium	7782-49-2	0.213 J	0.0601	0.414	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.104	2
06145	Thallium	7440-28-0	0.176	0.0311	0.104	2
06148	Vanadium	7440-62-2	38.5	0.0228	0.104	2
06149	Zinc	7440-66-6	34.9	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0161 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	2.2	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
	Wet Chemistry	SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.31	0.0100	0.0100	1
	Wet Chemistry	EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:28	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 21:08	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 04:54	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:24	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:37	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:08	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423863
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5804 SDG#: DE258-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:33	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:24	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:27	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/10/2011 09:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:48	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:27	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 14:52	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:28	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 7

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	68	U 68	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	68	U 68	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	68	U 68	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.68	U 0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.41	J 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68	U 0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.7	J 0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	5.3	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.0	J 0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.68	U 0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	27	6.2	18	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	18	1
10138	Chrysene	218-01-9	0.89	J 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68	U 0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	18	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14	J 6.2	18	1
10138	Fluoranthene	206-44-0	1.3	J 0.68	1.7	1
10138	Fluorene	86-73-7	0.68	U 0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.93	J 0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68	U 0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68	U 0.68	1.7	1
10138	Naphthalene	91-20-3	0.68	U 0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68	U 0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	18	1
10138	Phenanthrene	85-01-8	0.68	U 0.68	1.7	1
10138	Pyrene	129-00-0	0.80	J 0.68	1.7	1

The following compounds were detected in the method blank at the respective concentrations of:

bis(2-ethylhexyl)phthalate 7.6 ug/kg

indeno(1,2,3-cd)pyrene 1.1 ug/kg

benzo(g,h,i)perylene 1.5 ug/kg

These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.

Herbicides	SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.2	U 1.2	3.7
10401	Dalapon	75-99-0	4.5	U 4.5	9.3
10401	2,4-DB	94-82-6	1.4	J 0.64	1.7
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	Dinoseb	88-85-7	0.82 U	0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82 U	0.82	1.7	1
10401	MCPA	94-74-6	380	78	260	1
10401	MCPP (Mecoprop)	93-65-2	77 U	77	260	1
10401	2,4,5-T	93-76-5	0.10 U	0.10	0.17	1
10401	2,4,5-TP	93-72-1	0.26	0.077	0.17	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that MCPA and 2,4,5-TP were not detected in the reextract.

Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.060 J	0.035	0.17	1
01363	Chlordane	57-74-9	2.7 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.068 U	0.068	0.35	1
01363	p,p-DDE	72-55-9	1.1	0.068	0.35	1
01363	p,p-DDT	50-29-3	1.9	0.068	0.35	1
01363	Delta BHC	319-86-8	0.14 U	0.14	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.068 U	0.068	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.25 U	0.25	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.27 U	0.27	0.35	1
01363	Toxaphene	8001-35-2	4.3 U	4.3	6.8	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	2.5 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	1.5 J	0.34	1.7	1
10225	PCB-1260	11096-82-5	1.6 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	15,200	5.99	19.8	1
07914	Boron	7440-42-8	7.63	0.356	4.95	1
01650	Calcium	7440-70-2	35,400	2.48	19.8	1
01654	Iron	7439-89-6	21,500	2.58	19.8	1
01656	Lithium	7439-93-2	25.1	0.61	2.0	1
01657	Magnesium	7439-95-4	5,380	0.436	9.90	1
06958	Manganese	7439-96-5	328	0.0356	0.495	1
10145	Phosphorus	7723-14-0	469	0.347	9.90	1
01662	Potassium	7440-09-7	3,850	11.2	49.5	1
01667	Sodium	7440-23-5	72.2 J	5.89	99.0	1
07968	Strontium	7440-24-6	37.8	0.0248	0.495	1
06969	Tin	7440-31-5	2.24 J	0.317	9.90	1
06970	Titanium	7440-32-6	1,100	0.0717	1.01	1
10146	Zirconium	7440-67-7	1.71 J	0.456	4.95	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.149 J	0.0762	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.58	0.0824	0.412	2
06126	Barium	7440-39-3	108	0.109	0.412	2
06127	Beryllium	7440-41-7	0.690	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.235	0.0453	0.103	2
06131	Chromium	7440-47-3	25.8	0.124	0.412	2
06132	Cobalt	7440-48-4	8.91	0.0206	0.103	2
06133	Copper	7440-50-8	14.3	0.0816	0.408	2
06135	Lead	7439-92-1	13.9	0.0105	0.206	2
06138	Molybdenum	7439-98-7	2.03	0.0515	0.103	2
06139	Nickel	7440-02-0	17.5	0.103	0.412	2
06141	Selenium	7782-49-2	0.221 J	0.0597	0.412	2
06142	Silver	7440-22-4	0.0298 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.351	0.0309	0.103	2
06148	Vanadium	7440-62-2	49.8	0.0227	0.103	2
06149	Zinc	7440-66-6	82.8	0.577	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0194 J	0.0070	0.100	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	30.9	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.00	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	2.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 05:54	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 21:39	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 05:21	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:36	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 22:55	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:37	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:28	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:30	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 15:15	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423864
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5805 SDG#: DE258-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 7

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35	U 35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35	U 35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.78	J 0.35	1.7	1
10138	Anthracene	120-12-7	0.42	J 0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	4.0	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	3.3	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	16	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	1.4	J 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	47	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	2.7	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	1.1	J 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	18	J 6.2	19	1
10138	Fluoranthene	206-44-0	4.6	0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	1.3	J 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19	1
10138	Phenanthrene	85-01-8	1.6	J 0.69	1.7	1
10138	Pyrene	129-00-0	2.8	0.69	1.7	1
The following compounds were detected in the method blank at the respective concentrations of:						
bis(2-ethylhexyl)phthalate 7.6 ug/kg						
indeno(1,2,3-cd)pyrene 1.1 ug/kg						
dibenz(a,h)anthracene 1.4 ug/kg						
benzo(g,h,i)perylene 1.5 ug/kg						
These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. Bis(2-ethylhexyl)phthalate was again detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.						
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.2	U 1.2	3.7	1
10401	Dalapon	75-99-0	4.6	U 4.6	9.4	1
10401	2,4-DB	94-82-6	0.94	J 0.65	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Herbicides		SW-846 8151A	ug/kg	ug/kg	ug/kg	
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	79 U	79	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.21	0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4,5-TP was not detected in the reextract.

Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	2.4 J	0.83	3.5	1
01363	p,p-DDD	72-54-8	0.20 U	0.20	0.35	1
01363	p,p-DDE	72-55-9	1.1	0.069	0.35	1
01363	p,p-DDT	50-29-3	0.80	0.069	0.35	1
01363	Delta BHC	319-86-8	0.054 J	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.35	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.35	1
01363	Endrin	72-20-8	0.069 U	0.069	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.22 U	0.22	0.35	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.35	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.098 U	0.098	0.35	1
01363	Toxaphene	8001-35-2	2.3 U	2.3	6.9	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	1.4 J	0.34	1.8	1
10225	PCB-1260	11096-82-5	2.0	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	21,300	6.32	20.9	1
07914	Boron	7440-42-8	12.2	0.376	5.22	1
01650	Calcium	7440-70-2	68,000	13.0	104	5
01654	Iron	7439-89-6	24,200	2.72	20.9	1
01656	Lithium	7439-93-2	23.9	0.65	2.1	1
01657	Magnesium	7439-95-4	6,800	0.459	10.4	1
06958	Manganese	7439-96-5	402	0.0376	0.522	1
10145	Phosphorus	7723-14-0	615	0.365	10.4	1
01662	Potassium	7440-09-7	4,610	11.8	52.2	1
01667	Sodium	7440-23-5	94.3 J	6.21	104	1
07968	Strontium	7440-24-6	73.1	0.0261	0.522	1
06969	Tin	7440-31-5	2.20 J	0.334	10.4	1
06970	Titanium	7440-32-6	1,050	0.0741	1.04	1
10146	Zirconium	7440-67-7	2.13 J	0.480	5.22	1
SW-846 6020 mg/kg mg/kg mg/kg						
06124	Antimony	7440-36-0	0.146 J	0.0736	0.199	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.92	0.0795	0.398	2
06126	Barium	7440-39-3	115	0.105	0.398	2
06127	Beryllium	7440-41-7	0.748	0.0159	0.0994	2
06128	Cadmium	7440-43-9	0.324	0.0437	0.0994	2
06131	Chromium	7440-47-3	32.3	0.119	0.398	2
06132	Cobalt	7440-48-4	9.79	0.0199	0.0994	2
06133	Copper	7440-50-8	19.2	0.0795	0.398	2
06135	Lead	7439-92-1	14.9	0.0101	0.199	2
06138	Molybdenum	7439-98-7	0.531	0.0497	0.0994	2
06139	Nickel	7440-02-0	21.1	0.0994	0.398	2
06141	Selenium	7782-49-2	0.315 J	0.0577	0.398	2
06142	Silver	7440-22-4	0.0323 J	0.0141	0.0994	2
06145	Thallium	7440-28-0	0.367	0.0298	0.0994	2
06148	Vanadium	7440-62-2	51.4	0.0219	0.0994	2
06149	Zinc	7440-66-6	72.3	0.557	2.98	2
SW-846 7471A mg/kg mg/kg mg/kg						
00159	Mercury	7439-97-6	0.0138 J	0.0068	0.0965	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.0	1
EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.40 J	0.21	1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.87	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 06:19	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 22:11	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 05:49	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:38	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 23:33	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:33	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:42	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:32	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:54	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:54	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:54	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:54	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:41	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 15:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 15:57	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423865
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5806 SDG#: DE258-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	1.4 J	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	8.6 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatile analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.						
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.2 U	1.2	3.7	1
10401	Dalapon	75-99-0	4.6 U	4.6	9.4	1
10401	2,4-DB	94-82-6	1.8 J	0.64	1.8	1
10401	Dicamba	1918-00-9	0.42 U	0.42	1.2	1
10401	Dinoseb	88-85-7	0.83 U	0.83	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.83 U	0.83	1.8	1
10401	MCPA	94-74-6	200 U	200	260	1
10401	MCPP (Mecoprop)	93-65-2	78 U	78	260	1
10401	2,4,5-T	93-76-5	0.085 U	0.085	0.18	1
10401	2,4,5-TP	93-72-1	0.15 U	0.15	0.18	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A ug/kg ug/kg ug/kg						
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	1.9 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.14 U	0.14	0.36	1
01363	p,p-DDE	72-55-9	0.57	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.29 J	0.069	0.36	1
01363	Delta BHC	319-86-8	0.20	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.069 U	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.17 U	0.17	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.36	1
01363	Toxaphene	8001-35-2	2.7 U	2.7	6.9	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.55 J	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,000	6.14	20.3	1
07914	Boron	7440-42-8	10.9	0.366	5.08	1
01650	Calcium	7440-70-2	96,600	12.7	102	5
01654	Iron	7439-89-6	23,400	2.65	20.3	1
01656	Lithium	7439-93-2	22.6	0.63	2.0	1
01657	Magnesium	7439-95-4	6,720	0.447	10.2	1
06958	Manganese	7439-96-5	451	0.0366	0.508	1
10145	Phosphorus	7723-14-0	578	0.355	10.2	1
01662	Potassium	7440-09-7	4,370	11.5	50.8	1
01667	Sodium	7440-23-5	115	6.04	102	1
07968	Strontium	7440-24-6	101	0.0254	0.508	1
06969	Tin	7440-31-5	1.91 J	0.325	10.2	1
06970	Titanium	7440-32-6	1,070	0.0728	1.03	1
10146	Zirconium	7440-67-7	2.65 J	0.467	5.08	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.122 J	0.0759	0.205	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.44	0.0820	0.410	2
06126	Barium	7440-39-3	105	0.109	0.410	2
06127	Beryllium	7440-41-7	0.710	0.0164	0.103	2
06128	Cadmium	7440-43-9	0.338	0.0451	0.103	2
06131	Chromium	7440-47-3	31.3	0.123	0.410	2
06132	Cobalt	7440-48-4	9.63	0.0205	0.103	2
06133	Copper	7440-50-8	18.0	0.0820	0.410	2
06135	Lead	7439-92-1	11.3	0.0105	0.205	2
06138	Molybdenum	7439-98-7	0.491	0.0513	0.103	2
06139	Nickel	7440-02-0	19.2	0.103	0.410	2
06141	Selenium	7782-49-2	0.291 J	0.0595	0.410	2
06142	Silver	7440-22-4	0.0292 J	0.0146	0.103	2
06145	Thallium	7440-28-0	0.356	0.0308	0.103	2
06148	Vanadium	7440-62-2	53.2	0.0226	0.103	2
06149	Zinc	7440-66-6	63.8	0.574	3.08	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 J	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.74	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 06:44	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 22:43	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 06:16	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 19:53	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/17/2011 23:52	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:37	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423866
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5807 SDG#: DE258-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:46	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:37	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 04:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 04:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 04:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 04:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:33	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 15:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:04	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1

The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.

GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1

Herbicides		SW-846 8151A	ug/kg		ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U	1.3	3.8	1
10401	Dalapon	75-99-0	4.6	U	4.6	9.4	1
10401	2,4-DB	94-82-6	0.65	U	0.65	1.8	1
10401	Dicamba	1918-00-9	0.42	U	0.42	1.3	1
10401	Dinoseb	88-85-7	0.84	U	0.84	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.84	U	0.84	1.8	1
10401	MCPA	94-74-6	210	U	210	260	1
10401	MCPP (Mecoprop)	93-65-2	78	U	78	260	1
10401	2,4,5-T	93-76-5	0.086	U	0.086	0.18	1
10401	2,4,5-TP	93-72-1	0.20		0.078	0.18	1

The LCS data is outside the QC limits for various compounds. Results from the reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method.

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4,5-TP was not detected in the reextract. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs						
	SW-846 8081A		ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.069 U	0.069	0.17	1
01363	Alpha BHC	319-84-6	0.036 U	0.036	0.17	1
01363	Beta BHC	319-85-7	0.063 U	0.063	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.036 U	0.036	0.17	1
01363	Chlordane	57-74-9	2.9 J	0.84	3.6	1
01363	p,p-DDD	72-54-8	0.069 U	0.069	0.36	1
01363	p,p-DDE	72-55-9	0.62	0.069	0.36	1
01363	p,p-DDT	50-29-3	0.94	0.069	0.36	1
01363	Delta BHC	319-86-8	0.038 U	0.038	0.17	1
01363	Dieldrin	60-57-1	0.069 U	0.069	0.36	1
01363	Endosulfan I	959-98-8	0.046 U	0.046	0.17	1
01363	Endosulfan II	33213-65-9	0.069 U	0.069	0.36	1
01363	Endosulfan Sulfate	1031-07-8	0.069 U	0.069	0.36	1
01363	Endrin	72-20-8	0.069 U	0.069	0.36	1
01363	Endrin Aldehyde	7421-93-4	0.18 U	0.18	0.36	1
01363	Endrin Ketone	53494-70-5	0.069 U	0.069	0.36	1
01363	Heptachlor	76-44-8	0.063 U	0.063	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.036 U	0.036	0.17	1
01363	Methoxychlor	72-43-5	0.36 U	0.36	1.7	1
01363	Mirex	2385-85-5	0.069 U	0.069	0.36	1
01363	Toxaphene	8001-35-2	2.9 U	2.9	6.9	1

The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported.
Reporting limits were raised due to interference from the sample matrix.

Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The TCX surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,800	6.33	20.9	1
07914	Boron	7440-42-8	11.2	0.377	5.23	1
01650	Calcium	7440-70-2	109,000	13.1	105	5
01654	Iron	7439-89-6	25,200	2.73	20.9	1
01656	Lithium	7439-93-2	25.5	0.65	2.1	1
01657	Magnesium	7439-95-4	6,680	0.460	10.5	1
06958	Manganese	7439-96-5	330	0.0377	0.523	1
10145	Phosphorus	7723-14-0	500	0.366	10.5	1
01662	Potassium	7440-09-7	4,220	11.8	52.3	1
01667	Sodium	7440-23-5	104 J	6.22	105	1
07968	Strontium	7440-24-6	106	0.0262	0.523	1
06969	Tin	7440-31-5	2.06 J	0.335	10.5	1
06970	Titanium	7440-32-6	980	0.0721	1.02	1
10146	Zirconium	7440-67-7	3.31 J	0.481	5.23	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.113 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.35	0.0829	0.414	2
06126	Barium	7440-39-3	98.8	0.110	0.414	2
06127	Beryllium	7440-41-7	0.684	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.263	0.0456	0.104	2
06131	Chromium	7440-47-3	34.8	0.124	0.414	2
06132	Cobalt	7440-48-4	9.74	0.0207	0.104	2
06133	Copper	7440-50-8	18.4	0.0829	0.414	2
06135	Lead	7439-92-1	16.7	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.324	0.0518	0.104	2
06139	Nickel	7440-02-0	18.9	0.104	0.414	2
06141	Selenium	7782-49-2	0.631	0.0601	0.414	2
06142	Silver	7440-22-4	0.0209 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.330	0.0311	0.104	2
06148	Vanadium	7440-62-2	59.0	0.0228	0.104	2
06149	Zinc	7440-66-6	64.6	0.580	3.11	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0193 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.99 J	0.84	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	7.60	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11624	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:09	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 23:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 06:43	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:07	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 00:11	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:40	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423867
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5808 SDG#: DE258-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:51	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:41	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 16:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	1,2,4-Trichlorobenzene	120-82-1	17	U 17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34	U 34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34	U 34	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69	U 0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34	U 0.34	1.7	1
10138	Anthracene	120-12-7	0.34	U 0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69	U 0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69	U 0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69	U 0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69	U 0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69	U 0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	16	J 6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2	U 6.2	19	1
10138	Chrysene	218-01-9	0.34	U 0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69	U 0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2	U 6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2	U 6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1	J 6.2	19	1
10138	Fluoranthene	206-44-0	0.69	U 0.69	1.7	1
10138	Fluorene	86-73-7	0.69	U 0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69	U 0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69	U 0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69	U 0.69	1.7	1
10138	Naphthalene	91-20-3	0.69	U 0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69	U 0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2	U 6.2	19	1
10138	Phenanthrene	85-01-8	0.69	U 0.69	1.7	1
10138	Pyrene	129-00-0	0.69	U 0.69	1.7	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.						
Herbicides SW-846 8151A						
10401	2,4-D	94-75-7	1.2	U 1.2	3.7	1
10401	Dalapon	75-99-0	4.5	U 4.5	9.3	1
10401	2,4-DB	94-82-6	1.9	U 0.64	1.8	1
10401	Dicamba	1918-00-9	0.41	U 0.41	1.2	1
10401	Dinoseb	88-85-7	0.82	U 0.82	2.5	1
10401	2,4-DP (Dichlorprop)	120-36-5	0.82	U 0.82	1.8	1
10401	MCPA	94-74-6	180	U 180	260	1
10401	MCPP (Mecoprop)	93-65-2	77	U 77	260	1
10401	2,4,5-T	93-76-5	0.33	U 0.33	0.33	1
10401	2,4,5-TP	93-72-1	0.23	U 0.23	0.23	1
The LCS data is outside the QC limits for various compounds. Results from the						

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
reextraction are within the limits with the exception of dinoseb. Dinoseb recovered at 8%. However, this compound does not recover well with this method. Since the recovery for dinoseb is within our laboratory statistical limits of 0-36%, the data is accepted. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts with the exception that 2,4-DB was not detected in the reextract. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8081A						
01363	Aldrin	309-00-2	0.068 U	0.068	0.17	1
01363	Alpha BHC	319-84-6	0.035 U	0.035	0.17	1
01363	Beta BHC	319-85-7	0.062 U	0.062	0.17	1
01363	Gamma BHC - Lindane	58-89-9	0.035 U	0.035	0.17	1
01363	Chlordane	57-74-9	1.6 J	0.82	3.5	1
01363	p,p-DDD	72-54-8	0.18 U	0.18	0.35	1
01363	p,p-DDE	72-55-9	0.53	0.068	0.35	1
01363	p,p-DDT	50-29-3	0.43 U	0.43	0.43	1
01363	Delta BHC	319-86-8	0.055 J	0.037	0.17	1
01363	Dieldrin	60-57-1	0.068 U	0.068	0.35	1
01363	Endosulfan I	959-98-8	0.045 U	0.045	0.17	1
01363	Endosulfan II	33213-65-9	0.071 U	0.071	0.35	1
01363	Endosulfan Sulfate	1031-07-8	0.068 U	0.068	0.35	1
01363	Endrin	72-20-8	0.068 U	0.068	0.35	1
01363	Endrin Aldehyde	7421-93-4	0.34 U	0.34	0.35	1
01363	Endrin Ketone	53494-70-5	0.068 U	0.068	0.35	1
01363	Heptachlor	76-44-8	0.062 U	0.062	0.17	1
01363	Heptachlor Epoxide	1024-57-3	0.035 U	0.035	0.17	1
01363	Methoxychlor	72-43-5	0.35 U	0.35	1.7	1
01363	Mirex	2385-85-5	0.12 U	0.12	0.35	1
01363	Toxaphene	8001-35-2	7.8 U	7.8	7.8	1
The sample was injected after instrument maintenance and a new calibration. Various analytes in the calibration check standards bracketing the sample were outside the acceptance criteria. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. Reporting limits were raised due to interference from the sample matrix.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.7	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.7	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.7	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.7	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.7	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.7	1
10225	PCB-1260	11096-82-5	0.54 J	0.40	1.7	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.7	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,400	6.18	20.4	1
07914	Boron	7440-42-8	10.4	0.368	5.11	1
01650	Calcium	7440-70-2	134,000	12.8	102	5
01654	Iron	7439-89-6	21,300	2.67	20.4	1
01656	Lithium	7439-93-2	18.9	0.63	2.0	1
01657	Magnesium	7439-95-4	6,510	0.450	10.2	1
06958	Manganese	7439-96-5	268	0.0368	0.511	1
10145	Phosphorus	7723-14-0	455	0.358	10.2	1
01662	Potassium	7440-09-7	3,360	11.5	51.1	1
01667	Sodium	7440-23-5	116	6.08	102	1
07968	Strontium	7440-24-6	151	0.0255	0.511	1
06969	Tin	7440-31-5	1.99 J	0.327	10.2	1
06970	Titanium	7440-32-6	834	0.0733	1.03	1
10146	Zirconium	7440-67-7	3.54 J	0.470	5.11	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.253	0.0756	0.204	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.86	0.0817	0.409	2
06126	Barium	7440-39-3	108	0.108	0.409	2
06127	Beryllium	7440-41-7	0.749	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.343	0.0450	0.102	2
06131	Chromium	7440-47-3	32.6	0.123	0.409	2
06132	Cobalt	7440-48-4	10.2	0.0204	0.102	2
06133	Copper	7440-50-8	22.9	0.0817	0.409	2
06135	Lead	7439-92-1	22.9	0.0104	0.204	2
06138	Molybdenum	7439-98-7	0.440	0.0511	0.102	2
06139	Nickel	7440-02-0	19.8	0.102	0.409	2
06141	Selenium	7782-49-2	0.284 J	0.0593	0.409	2
06142	Silver	7440-22-4	0.0184 J	0.0145	0.102	2
06145	Thallium	7440-28-0	0.303	0.0307	0.102	2
06148	Vanadium	7440-62-2	61.4	0.0225	0.102	2
06149	Zinc	7440-66-6	64.6	0.572	3.07	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0137 J	0.0070	0.0991	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.82 U	0.82	1.0	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.0	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.49 J	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	7.47	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11624	Moisture Content by 160.3	n.a.	3.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:34	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/13/2011 23:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	112810010A	10/12/2011 07:11	Michele D Hamilton	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	112810037A	10/14/2011 20:22	Melissa McDermott	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 00:29	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	112810037A	10/14/2011 09:07	Sherry L Morrow	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	112810010A	10/10/2011 08:00	Kerrie A Freeburn	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/13/2011 12:44	Eric L Eby	5
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423868
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5809 SDG#: DE258-09FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 11:55	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:46	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:35	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201A	10/15/2011 16:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202A	10/13/2011 16:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:33	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201A	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285020A	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402A	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	2.0	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,600	6.52	21.6	1
07914	Boron	7440-42-8	2.58 J	0.388	5.39	1
01650	Calcium	7440-70-2	2,110	2.69	21.6	1
01654	Iron	7439-89-6	19,500	2.81	21.6	1
01656	Lithium	7439-93-2	24.3	0.67	2.2	1
01657	Magnesium	7439-95-4	3,780	0.474	10.8	1
06958	Manganese	7439-96-5	282	0.0388	0.539	1
10145	Phosphorus	7723-14-0	282	0.377	10.8	1
01662	Potassium	7440-09-7	4,020	12.2	53.9	1
01667	Sodium	7440-23-5	85.6 J	6.41	108	1
07968	Strontium	7440-24-6	19.5	0.0269	0.539	1
06969	Tin	7440-31-5	2.45 J	0.345	10.8	1
06970	Titanium	7440-32-6	1,250	0.0736	1.04	1
10146	Zirconium	7440-67-7	1.76 J	0.496	5.39	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0855 J	0.0782	0.211	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.03	0.0845	0.423	2
06126	Barium	7440-39-3	134	0.112	0.423	2
06127	Beryllium	7440-41-7	0.667	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.164	0.0465	0.106	2
06131	Chromium	7440-47-3	16.8	0.127	0.423	2
06132	Cobalt	7440-48-4	6.53	0.0211	0.106	2
06133	Copper	7440-50-8	9.64	0.0862	0.431	2
06135	Lead	7439-92-1	6.61	0.0108	0.211	2
06138	Molybdenum	7439-98-7	0.878	0.0528	0.106	2
06139	Nickel	7440-02-0	12.2	0.106	0.423	2
06141	Selenium	7782-49-2	0.0991 J	0.0613	0.423	2
06142	Silver	7440-22-4	0.0360 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.357	0.0317	0.106	2
06148	Vanadium	7440-62-2	34.5	0.0232	0.106	2
06149	Zinc	7440-66-6	69.6	0.592	3.17	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	ug/kg	ug/kg	1
				ug/kg	ug/kg	
				ug/kg	ug/kg	
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	mg/kg	mg/kg	1
				mg/kg	mg/kg	
				mg/kg	mg/kg	
SW-846 9045C modified						
			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.99	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.2	%	%	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 07:59	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 00:18	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 01:07	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423869
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5810 SDG#: DE258-10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:00	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:50	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:07	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:07	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:07	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:07	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:36	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 16:30	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 18:42	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 16:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.7	1
10138	Acenaphthylene	208-96-8	0.58 J	0.35	1.7	1
10138	Anthracene	120-12-7	0.83 J	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	2.9	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	1.9	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	3.4	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.3 J	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	2.5	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.7	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.9 J	6.3	19	1
10138	Fluoranthene	206-44-0	8.3	0.70	1.7	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 J	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.7	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	4.6	0.70	1.7	1
10138	Pyrene	129-00-0	5.3	0.70	1.7	1
The following compounds were detected in the method blank at the respective concentrations of: bis(2-ethylhexyl)phthalate 7.6 ug/kg indeno(1,2,3-cd)pyrene 1.1 ug/kg These blank values were not subtracted from the analytical results. This sample was re-extracted outside of the method required holding time, and acceptable QC was observed. These compounds were not detected in the re-analysis of the sample. The data reported here is from the initial extraction of the sample.						
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	9,250	6.20	20.5	1
07914	Boron	7440-42-8	1.20 J	0.369	5.13	1
01650	Calcium	7440-70-2	4,850	2.56	20.5	1
01654	Iron	7439-89-6	16,600	2.68	20.5	1
01656	Lithium	7439-93-2	27.5	0.64	2.1	1
01657	Magnesium	7439-95-4	4,000	0.451	10.3	1
06958	Manganese	7439-96-5	248	0.0369	0.513	1
10145	Phosphorus	7723-14-0	308	0.359	10.3	1
01662	Potassium	7440-09-7	2,940	11.6	51.3	1
01667	Sodium	7440-23-5	81.2 J	6.10	103	1
07968	Strontium	7440-24-6	13.2	0.0256	0.513	1
06969	Tin	7440-31-5	2.26 J	0.328	10.3	1
06970	Titanium	7440-32-6	1,080	0.0735	1.04	1
10146	Zirconium	7440-67-7	0.573 J	0.472	5.13	1
SW-846 6020 mg/kg mg/kg mg/kg						
06124	Antimony	7440-36-0	0.0860 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	3.12	0.0829	0.414	2
06126	Barium	7440-39-3	90.8	0.110	0.414	2
06127	Beryllium	7440-41-7	0.407	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.0757 J	0.0456	0.104	2
06131	Chromium	7440-47-3	13.2	0.124	0.414	2
06132	Cobalt	7440-48-4	4.99	0.0207	0.104	2
06133	Copper	7440-50-8	5.08	0.0812	0.406	2
06135	Lead	7439-92-1	3.75	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.289	0.0518	0.104	2
06139	Nickel	7440-02-0	8.73	0.104	0.414	2
06141	Selenium	7782-49-2	0.0601 U	0.0601	0.414	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.104	2
06145	Thallium	7440-28-0	0.271	0.0311	0.104	2
06148	Vanadium	7440-62-2	28.6	0.0228	0.104	2
06149	Zinc	7440-66-6	60.3	0.580	3.11	2
SW-846 7471A mg/kg mg/kg mg/kg						

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 0.0071 U	mg/kg 0.0071	mg/kg 0.101	1
Wet Chemistry						
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 1.0 J	mg/kg 0.84	mg/kg 1.0	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 9.4 U	ug/kg 9.4	ug/kg 31.4	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.21 U	mg/kg 0.21	mg/kg 1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	Std. Units 7.63	Std. Units 0.0100	Std. Units 0.0100	1
Wet Chemistry						
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 4.4	% 0.50	% 0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 08:24	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 00:50	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 02:41	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423870
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5811 SDG#: DE258-11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:04	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:54	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:10	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:16	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:10	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:10	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:10	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 17:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 17:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 17:02	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	180 U	180	180	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
The recoveries of several compounds were outside of QC limits in the LCS. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.						
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of 7.6 ug/kg. The blank value was not subtracted from the analytical result.						
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	25.61
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs						
	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
GC Miscellaneous						
	SW-846 8015B		ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	530	1
10501	Isopropanol	67-63-0	110 U	110	530	1
10501	Methanol	67-56-1	110 U	110	530	1
GC Miscellaneous						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11	1
GC Petroleum Hydrocarbons						
	SW-846 8015B		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum Hydrocarbons						
	SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	1.4	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	2.0	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	4.2	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,800	6.16	20.4	1
07914	Boron	7440-42-8	1.87 J	0.366	5.09	1
01650	Calcium	7440-70-2	1,670	2.54	20.4	1
01654	Iron	7439-89-6	16,200	2.66	20.4	1
01656	Lithium	7439-93-2	21.9	0.63	2.0	1
01657	Magnesium	7439-95-4	3,280	0.448	10.2	1
06958	Manganese	7439-96-5	191	0.0366	0.509	1
10145	Phosphorus	7723-14-0	210	0.356	10.2	1
01662	Potassium	7440-09-7	2,650	11.5	50.9	1
01667	Sodium	7440-23-5	108	6.05	102	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 7

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
SW-846 6010B			mg/kg	mg/kg	mg/kg	
07968	Strontium	7440-24-6	11.4	0.0254	0.509	1
06969	Tin	7440-31-5	2.38 J	0.326	10.2	1
06970	Titanium	7440-32-6	1,080	0.0737	1.04	1
10146	Zirconium	7440-67-7	0.838 J	0.468	5.09	1
SW-846 6020			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0768 U	0.0768	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.16	0.0830	0.415	2
06126	Barium	7440-39-3	102	0.110	0.415	2
06127	Beryllium	7440-41-7	0.735	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.0806 J	0.0456	0.104	2
06131	Chromium	7440-47-3	15.9	0.124	0.415	2
06132	Cobalt	7440-48-4	5.11	0.0207	0.104	2
06133	Copper	7440-50-8	5.45	0.0847	0.423	2
06135	Lead	7439-92-1	6.03	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.627	0.0519	0.104	2
06139	Nickel	7440-02-0	10.3	0.104	0.415	2
06141	Selenium	7782-49-2	0.176 J	0.0602	0.415	2
06142	Silver	7440-22-4	0.0351 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.323	0.0311	0.104	2
06148	Vanadium	7440-62-2	31.4	0.0228	0.104	2
06149	Zinc	7440-66-6	61.4	0.581	3.11	2
SW-846 7471A			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
EPA 300.0			mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.1	0.86	1.1	1
EPA 314.0			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.7	1
SW-846 7199			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
SW-846 9012B			mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	1
SW-846 9045C modified			Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.92	0.0100	0.0100	1
Wet Chemistry			EPA 160.3 modified	%	%	

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-177-SA7-SB-3.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11284SLA026	10/14/2011 08:49	Jennifer R Riggs	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11284SLB026	10/14/2011 01:22	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11284SLB026	10/12/2011 03:00	Sherry L Morrow	1
00381	BNA Soil Sonication	SW-846 3550B	1	11284SLA026	10/12/2011 03:00	Sherry L Morrow	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11274A34A	10/01/2011 19:58	Laura M Krieger	25.61
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201127325703	09/30/2011 13:07	Larry E Bevins	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201127325703	09/30/2011 13:08	Larry E Bevins	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112840021A	10/18/2011 02:59	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112840021A	10/11/2011 21:40	Karen L Beyer	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112730032A	10/03/2011 23:18	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112790048A	10/06/2011 21:56	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112790037A	10/08/2011 13:52	Heather E Williams	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	112790036A	10/08/2011 20:06	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	112790036A	10/07/2011 08:00	Joseph S Feister	1
10303	Terphenyls soil prep	SW-846 3550B	1	112790037A	10/07/2011 07:40	Katheryne V Sponheimer	1
00380	Solids Extraction for Alcohols	SW-846 8015B	2	112730032A	10/03/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112790048A	10/06/2011 17:30	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
07914	Boron	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01650	Calcium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01654	Iron	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01656	Lithium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01657	Magnesium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06958	Manganese	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
10145	Phosphorus	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01662	Potassium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
01667	Sodium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
07968	Strontium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06969	Tin	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06970	Titanium	SW-846 6010B	1	112865708002	10/14/2011 12:08	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	112785708004	10/12/2011 17:58	John P Hook	1
06124	Antimony	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112781026001D	10/07/2011 05:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112801026001A	10/11/2011 05:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112781026001C	10/07/2011 05:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112781026001B	10/07/2011 05:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112781026001A	10/07/2011 05:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112785711002	10/10/2011 09:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112785708004	10/06/2011 10:19	James L Mertz	1
05708	SW SW846 ICP Digest	SW-846 3050B	2	112865708002	10/13/2011 21:58	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112781026001	10/06/2011 10:38	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	112801026001	10/10/2011 11:34	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112785711002	10/06/2011 14:20	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11285495201B	10/15/2011 17:43	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11285285202B	10/13/2011 19:06	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11283243201A	10/12/2011 17:16	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11278102201B	10/05/2011 20:40	Joseph E McKenzie	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11285495201B	10/12/2011 23:15	James S Mathiot	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11285285202B	10/12/2011 18:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11278102201B	10/05/2011 15:45	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11285039402B	10/12/2011 10:00	Michelle L Lalli	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 7 of 7

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423871
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5812 SDG#: DE258-12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11283243201A	10/10/2011 09:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: TB-092911 Water
SSFL Area IV Collocated Soil Sampling
TB-092911

LLI Sample # WW 6423872
LLI Group # 1269114
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 11/14/2011 13:38

E5813 SDG#: DE258-13TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11279A20A	10/07/2011 13:14	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11279A20A	10/07/2011 13:14	Marie D John	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11284SLA026 Sample number(s): 6423855-6423858, 6423862-6423871									
Acenaphthene	17	U	17.	170 ug/kg	95		76-111		
Acenaphthylene	17	U	17.	170 ug/kg	99		75-122		
Aniline	170		170.	500 ug/kg	67		20-115		
	U								
Anthracene	17	U	17.	170 ug/kg	103		76-112		
Benzidine	1,200		1,200.	3,300 ug/kg	33		15-121		
	U								
Benzo(a)anthracene	17	U	17.	170 ug/kg	106		73-112		
Benzo(a)pyrene	17	U	17.	170 ug/kg	108		65-124		
Benzo(b)fluoranthene	17	U	17.	170 ug/kg	101		61-127		
Benzo(g,h,i)perylene	17	U	17.	170 ug/kg	102		60-125		
Benzo(k)fluoranthene	17	U	17.	170 ug/kg	108		67-125		
Benzoic acid	170		170.	500 ug/kg	47*		62-113		
	U								
Benzyl alcohol	170		170.	500 ug/kg	90		68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170 ug/kg	117*		73-114		
Butylbenzylphthalate	17	U	17.	170 ug/kg	92		75-115		
Di-n-butylphthalate	17	U	17.	170 ug/kg	101		79-112		
Carbazole	17	U	17.	170 ug/kg	99		77-113		
4-Chloro-3-methylphenol	33	U	33.	170 ug/kg	93		74-119		
4-Chloroaniline	67	U	67.	170 ug/kg	42		10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170 ug/kg	97		70-118		
bis(2-Chloroethyl)ether	17	U	17.	170 ug/kg	97		70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170 ug/kg	82		62-115		
2-Chloronaphthalene	17	U	17.	170 ug/kg	88		49-128		
2-Chlorophenol	17	U	17.	170 ug/kg	94		72-112		
4-Chlorophenyl-phenylether	33	U	33.	170 ug/kg	100		74-115		
Chrysene	17	U	17.	170 ug/kg	110		76-113		
Dibenz(a,h)anthracene	17	U	17.	170 ug/kg	106		61-126		
Dibenzofuran	17	U	17.	170 ug/kg	94		74-116		
1,2-Dichlorobenzene	17	U	17.	170 ug/kg	88		74-99		
1,3-Dichlorobenzene	17	U	17.	170 ug/kg	87		70-98		
1,4-Dichlorobenzene	17	U	17.	170 ug/kg	87		74-106		
3,3'-Dichlorobenzidine	100		100.	330 ug/kg	45		10-116		
	U								
2,4-Dichlorophenol	17	U	17.	170 ug/kg	102		75-111		
Diethylphthalate	17	U	17.	170 ug/kg	97		76-111		
2,4-Dimethylphenol	33	U	33.	170 ug/kg	96		72-111		
3,5-Dimethylphenol	33	U	33.	170 ug/kg	99		83-120		
Dimethylphthalate	17	U	17.	170 ug/kg	100		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500 ug/kg	40*		46-120		
	U								
2,4-Dinitrophenol	330		330.	1,000 ug/kg	22		18-133		
	U								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	106		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	105		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	94		75-117		
Fluoranthene	17 U	17.	170	ug/kg	110		78-116		
Fluorene	17 U	17.	170	ug/kg	98		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	120*		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	107		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	97		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	93		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	106		64-119		
Isophorone	17 U	17.	170	ug/kg	94		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	91		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	93		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	95		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	96		66-117		
Naphthalene	17 U	17.	170	ug/kg	89		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	85		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	89		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	63		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	78		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	85		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	89		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	86		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	105		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	91		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	79		51-117		
Phenanthrene	17 U	17.	170	ug/kg	102		77-113		
Phenol	17 U	17.	170	ug/kg	97		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	97		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	105		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	109		78-111		
Batch number: 11284SLB026	Sample number(s): 6423855-6423858, 6423862-6423871								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	88		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	85		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	95		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	94		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	104		63-143		
Benzo(g,h,i)perylene	1.5 J	0.67	1.7	ug/kg	96		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	92		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	106		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	93		73-114		
Dibenz(a,h)anthracene	1.4 J	0.67	1.7	ug/kg	98		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	102		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	94		79-121		
Bis(2-Ethylhexyl)phthalate	7.6 J	6.0	18	ug/kg	116		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	98		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	94		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCS D Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	1.1 J	0.67	1.7	ug/kg	98		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	83		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	85		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	86		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	109		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	89		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	93		72-119		
Batch number: 11274A34A	Sample number(s): 6423871								
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	71		67-119		
Batch number: 11279A20A	Sample number(s): 6423872								
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	100	100	75-135	0	30
Batch number: 112810010A	Sample number(s): 6423855-6423858, 6423860, 6423862-6423868								
2,4-D	1.2 U	1.2	3.6	ug/kg	77		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	37		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	81		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	51*		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	9*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	95		62-170		
MCPA	76 U	76.	250	ug/kg	53*		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	47*		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	89		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	63*		68-114		
Batch number: 112910026A	Sample number(s): 6423861								
2,4-D	1.2 U	1.2	3.6	ug/kg	90		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	23		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	87		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	98		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	8*		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	92		62-170		
MCPA	76 U	76.	250	ug/kg	62		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	55		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	90		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	82		68-114		
Batch number: 112810037A	Sample number(s): 6423855-6423858, 6423860-6423868								
Aldrin	0.066 U	0.066	0.17	ug/kg	82		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	74		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	94		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	79		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	125		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	118		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	100		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	97		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	94		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	62		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	92		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	105		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	94		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	91		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	98		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	79		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	91		65-131		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methoxychlor	0.34 U	0.34	1.7	ug/kg	119		59-125		
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 112840021A	Sample number(s): 6423855-6423858, 6423860-6423871								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg	65	66	36-106	1	30
Aroclor 5442	1.0 U	1.0	3.3	ug/kg					
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	72		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	82		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112730032A	Sample number(s): 6423871								
Ethanol	100 U	100.	500	ug/kg	99		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	98		68-129		
Batch number: 112790048A	Sample number(s): 6423871								
Diethylene glycol	5.0 U	5.0	10	mg/kg	94		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	96		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	84		67-131		
Batch number: 112790036A	Sample number(s): 6423871								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	101		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	106		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	103		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	102		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	87		49-107		
Batch number: 112790037A	Sample number(s): 6423871								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	100		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	96		69-109		
Batch number: 112781026001A	Sample number(s): 6423855-6423859, 6423862-6423871								
Antimony	0.0725 U	0.0725	0.196	mg/kg	76		40-227		
Arsenic	0.0784 U	0.0784	0.392	mg/kg	97		83-111		
Beryllium	0.0157 U	0.0157	0.0980	mg/kg	94		84-112		
Cadmium	0.0431 U	0.0431	0.0980	mg/kg	95		83-111		
Chromium	0.118 U	0.118	0.392	mg/kg	105		77-123		
Cobalt	0.0196 U	0.0196	0.0980	mg/kg	98		85-114		
Copper	0.977 U	0.0784	0.392	mg/kg	102		81-110		
Lead	0.121 J	0.0100	0.196	mg/kg	96		84-112		
Nickel	0.0980 U	0.0980	0.392	mg/kg	99		81-110		
Silver	0.0360 J	0.0139	0.0980	mg/kg	100		83-112		
Thallium	0.0294 U	0.0294	0.0980	mg/kg	96		82-112		
Vanadium	0.0216 U	0.0216	0.0980	mg/kg	97		76-110		
Zinc	0.549 U	0.549	2.94	mg/kg	96		82-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 112781026001B Selenium	0.0569 U	0.0569	0.392	mg/kg	94		79-110		
Batch number: 112781026001C Molybdenum	0.0490 U	0.0490	0.0980	mg/kg	101		80-110		
Batch number: 112781026001D Barium	0.104 U	0.104	0.392	mg/kg	96		83-110		
Batch number: 112785708004 Aluminum	14.0 J	5.99	19.8	mg/kg	105		51-110		
Boron	0.356 U	0.356	4.95	mg/kg	103		83-110		
Calcium	13.0 J	2.48	19.8	mg/kg	103		81-110		
Iron	7.03 J	2.58	19.8	mg/kg	94		57-110		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	5.37 J	0.436	9.90	mg/kg	103		68-110		
Manganese	0.0762 J	0.0356	0.495	mg/kg	99		85-116		
Phosphorus	1.34 J	0.347	9.90	mg/kg	106		80-120		
Potassium	11.2 U	11.2	49.5	mg/kg	102		71-110		
Sodium	5.89 U	5.89	99.0	mg/kg	98		76-110		
Strontium	0.0535 J	0.0248	0.495	mg/kg	99		84-110		
Tin	1.32 J	0.317	9.90	mg/kg	96		86-120		
Zirconium	0.455 U	0.455	4.95	mg/kg	107		80-120		
Batch number: 112785711002 Mercury	0.0067 U	0.0067	0.0946	mg/kg	95		83-119		
Batch number: 112801026001A Copper	0.0769 U	0.0769	0.385	mg/kg	92		81-110		
Batch number: 112865708002 Titanium	0.0860 J	0.0710	1.00	mg/kg	97		80-120		
Batch number: 11278102201B 16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	99		80-120		
Batch number: 11283243201A 3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	89		80-120		
Batch number: 11285285202A 7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	93		85-115		
Batch number: 11285285202B 7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	93		85-115		
Batch number: 11285495201A 11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	100		90-110		
Batch number: 11285495201B 11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	100		90-110		
Batch number: 11285039402A 17a pH by 9045C					100		95-105		
Batch number: 11285039402B 17a pH by 9045C					100		95-105		
Batch number: 11278162403B									

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11284SLA026	Sample number(s): 6423855-6423858, 6423862-6423871 UNSPK: 6423856								
Acenaphthene	96	87	75-115	10	30				
Acenaphthylene	100	90	81-110	10	30				
Aniline	79	56	18-116	34*	30				
Anthracene	106	92	75-115	14	30				
Benzidine	38	0*	35-141	200*	30				
Benzo(a)anthracene	106	92	65-122	14	30				
Benzo(a)pyrene	110	96	57-126	13	30				
Benzo(b)fluoranthene	108	95	59-125	12	30				
Benzo(g,h,i)perylene	106	98	59-127	8	30				
Benzo(k)fluoranthene	109	91	56-132	18	30				
Benzoic acid	13	12	10-173	11	30				
Benzyl alcohol	92	107	67-115	15	30				
4-Bromophenyl-phenylether	120	107	67-129	11	30				
Butylbenzylphthalate	98	90	73-134	9	30				
Di-n-butylphthalate	103	92	67-123	11	30				
Carbazole	101	86	64-120	16	30				
4-Chloro-3-methylphenol	96	84	62-122	14	30				
4-Chloroaniline	66	32	13-107	69*	30				
bis(2-Chloroethoxy)methane	98	92	75-104	6	30				
bis(2-Chloroethyl)ether	100	91	60-116	10	30				
bis(2-Chloroisopropyl)ether	82	78	55-142	5	30				
2-Chloronaphthalene	88	81	50-141	8	30				
2-Chlorophenol	98	90	73-121	8	30				
4-Chlorophenyl-phenylether	101	89	80-109	12	30				
Chrysene	109	93	62-128	16	30				
Dibenz(a,h)anthracene	110	99	65-125	11	30				
Dibenzofuran	95	85	71-112	12	30				
1,2-Dichlorobenzene	89	83	66-108	7	30				
1,3-Dichlorobenzene	87	82	63-109	6	30				
1,4-Dichlorobenzene	87	80	58-108	8	30				
3,3'-Dichlorobenzidine	62	41	28-109	41*	30				
2,4-Dichlorophenol	104	94	66-123	10	30				
Diethylphthalate	97	86	66-118	12	30				
2,4-Dimethylphenol	100	90	68-118	11	30				
3,5-Dimethylphenol	103	93	71-127	10	30				
Dimethylphthalate	99	87	64-118	12	30				
4,6-Dinitro-2-methylphenol	33	42	11-126	25	30				
2,4-Dinitrophenol	0*	20	20-143	200*	30				
2,4-Dinitrotoluene	98	86	56-129	14	30				
2,6-Dinitrotoluene	107	94	69-123	13	30				
1,2-Diphenylhydrazine	107	96	71-129	11	30				
bis(2-Ethylhexyl)phthalate	98	92	63-122	7	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Fluoranthene	111	94	73-112	17	30				
Fluorene	98	87	63-121	12	30				
Hexachlorobenzene	123*	110	77-114	11	30				
Hexachlorobutadiene	109	103	62-120	6	30				
Hexachlorocyclopentadiene	116	117	10-153	1	30				
Hexachloroethane	93	89	57-109	4	30				
Indeno(1,2,3-cd)pyrene	109	98	61-126	10	30				
Isophorone	96	89	73-102	8	30				
1-Methylnaphthalene	91	83	64-122	10	30				
2-Methylnaphthalene	94	86	76-114	9	30				
2-Methylphenol	96	89	75-111	8	30				
4-Methylphenol	100	90	59-123	11	30				
Naphthalene	91	84	72-116	8	30				
2-Nitroaniline	87	81	67-125	6	30				
3-Nitroaniline	96	75	59-122	25	30				
4-Nitroaniline	70	58	41-109	18	30				
Nitrobenzene	97	92	57-125	5	30				
2-Nitrophenol	85	87	56-127	1	30				
4-Nitrophenol	87	81	37-129	7	30				
N-Nitroso-di-n-propylamine	90	83	60-116	8	30				
N-Nitrosodimethylamine	91	84	47-116	9	30				
N-Nitrosodiphenylamine	107	96	71-122	11	30				
Di-n-octylphthalate	99	94	56-126	5	30				
Pentachlorophenol	68	89	28-127	27	30				
Phenanthrene	104	90	65-125	14	30				
Phenol	101	91	58-126	10	30				
Pyrene	101	89	74-126	12	30				
1,2,4-Trichlorobenzene	99	93	72-115	6	30				
2,4,5-Trichlorophenol	107	98	58-129	8	30				
2,4,6-Trichlorophenol	112	103	56-134	8	30				

Batch number: 11284SLB026	Sample number(s): 6423855-6423858, 6423862-6423871 UNSPK: 6423856								
Acenaphthene	93	84	63-105	10	30				
Acenaphthylene	93	83	67-114	12	30				
Anthracene	99	87	73-115	13	30				
Benzo(a)anthracene	99	85	59-128	15	30				
Benzo(a)pyrene	98	89	58-142	10	30				
Benzo(b)fluoranthene	106	106	54-163	0	30				
Benzo(g,h,i)perylene	91	55	33-141	49*	30				
Benzo(k)fluoranthene	92	89	57-153	3	30				
Butylbenzylphthalate	134	92	57-173	25	30				
Di-n-butylphthalate	115	114	65-148	0	30				
Chrysene	97	87	67-123	11	30				
Dibenz(a,h)anthracene	101	66	22-133	41*	30				
Diethylphthalate	106	99	70-136	6	30				
Dimethylphthalate	101	91	74-118	11	30				
Bis(2-Ethylhexyl)phthalate	102	124	39-167	16	30				
Fluoranthene	103	93	51-149	10	30				
Fluorene	99	89	66-122	11	30				
Indeno(1,2,3-cd)pyrene	99	65	21-143	41*	30				
1-Methylnaphthalene	90	80	72-123	12	30				
2-Methylnaphthalene	90	79	64-103	14	30				
Naphthalene	92	81	61-102	12	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
N-Nitrosodimethylamine	95	81	48-113	16	30				
Di-n-octylphthalate	117	116	40-192	1	30				
Phenanthrene	96	84	62-122	14	30				
Pyrene	99	86	51-131	15	30				
Batch number: 11274A34A	Sample number(s): 6423871 UNSPK: P421299								
9a TPH by EPA 8015B Gas C5-C12	77	77	39-118	9	30				
Batch number: 112810010A	Sample number(s): 6423855-6423858, 6423860-6423868 UNSPK: 6423856								
2,4-D	75	77	17-180	2	35				
Dalapon	50	41	10-125	19	50				
2,4-DB	78	63	10-201	20	50				
Dicamba	86	84	10-190	1	50				
Dinoseb	8*	36	10-46	124*	35				
2,4-DP (Dichlorprop)	111	115	33-178	4	50				
MCPA	184	209	10-213	14	50				
MCPP (Mecoprop)	39	44	10-184	8	50				
2,4,5-T	70	47	10-156	39*	35				
2,4,5-TP	16*	42	24-141	92*	35				
Batch number: 112910026A	Sample number(s): 6423861 UNSPK: P423856								
2,4-D	78	77	17-180	1	35				
Dalapon	0*	0*	10-125	0	50				
2,4-DB	88	82	10-201	7	50				
Dicamba	55	0*	10-190	200*	50				
Dinoseb	18	11	10-46	43*	35				
2,4-DP (Dichlorprop)	70	73	33-178	4	50				
MCPA	72	77	10-213	7	50				
MCPP (Mecoprop)	55	55	10-184	1	50				
2,4,5-T	34	41	10-156	19	35				
2,4,5-TP	35	55	24-141	45*	35				
Batch number: 112810037A	Sample number(s): 6423855-6423858, 6423860-6423868 UNSPK: 6423856								
Aldrin	55	55	16-126	0	50				
Alpha BHC	53	50	10-129	6	50				
Beta BHC	59	53	14-147	11	50				
Gamma BHC - Lindane	53	53	10-140	0	50				
p,p-DDD	72	69	16-163	4	50				
p,p-DDE	72	63	18-161	7	50				
p,p-DDT	118	110	10-176	7	50				
Delta BHC	67	67	23-140	0	50				
Dieldrin	50	46	19-154	9	50				
Endosulfan I	41	50	16-137	19	50				
Endosulfan II	78	69	28-154	13	50				
Endosulfan Sulfate	0*	51	21-160	200*	50				
Endrin	60	57	11-149	5	50				
Endrin Aldehyde	74	68	10-148	9	35				
Endrin Ketone	57	0*	22-165	200*	50				
Heptachlor	59	56	13-126	5	50				
Heptachlor Epoxide	70	70	13-157	0	50				
Methoxychlor	64	58	32-147	10	50				
Batch number: 112840021A	Sample number(s): 6423855-6423858, 6423860-6423871 UNSPK: 6423856								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
PCB-1016	70	81	29-146	14	50				
PCB-1260	80	93	39-149	15	50				
Batch number: 112730032A	Sample number(s): 6423871 UNSPK: P419519								
Ethanol	88	67	48-130	27*	20				
Isopropanol	84	64	12-149	28*	20				
Methanol	87	68	43-138	24*	20				
Batch number: 112790048A	Sample number(s): 6423871 UNSPK: P430028								
Diethylene glycol	28*	34*	59-109	20	20				
Ethylene glycol	58*	61*	63-107	5	20				
Propylene glycol	61*	63	63-107	2	20				
Batch number: 112790036A	Sample number(s): 6423871 UNSPK: P421299								
EFH (C12-C14)	95	101	49-123	5	20				
EFH (C15-C20)	110	91	49-123	13	20				
EFH (C21-C30)	-50*	35*	49-123	22*	20				
EFH (C30 - C40)	-175	-220	49-123	6	20				
	(2)	(2)							
EFH (C8-C11)	90	87	49-123	5	20				
Batch number: 112790037A	Sample number(s): 6423871 UNSPK: P421299								
m-Terphenyl	91	96	75-125	6	20				
o-Terphenyl	93	99	75-125	6	20				
p-Terphenyl	92	98	75-125	6	20				
Batch number: 112781026001A	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Antimony	27*	37*	75-125	20	20	0.200	0.225	12 (1)	20
Arsenic	191*	210*	75-125	4	20	6.56	8.85	30*	20
Beryllium	112	116	75-125	3	20	0.634	0.768	19	20
Cadmium	112	131*	75-125	13	20	0.290	0.352	19 (1)	20
Chromium	168*	208*	75-125	9	20	28.9	33.9	16	20
Cobalt	110	129*	75-125	15	20	9.28	9.17	1	20
Copper	130*	167*	75-125	11	20	18.2	22.9	23*	20
Lead	121 (2)	255 (2)	75-125	16	20	20.1	23.0	14	20
Nickel	136*	179*	75-125	14	20	16.5	19.8	18	20
Silver	110	127*	75-125	15	20	0.0221 J	0.0170 J	26* (1)	20
Thallium	122	144*	75-125	12	20	0.248	0.303	20 (1)	20
Vanadium	243 (2)	285 (2)	75-125	6	20	49.9	62.8	23*	20
Zinc	145 (2)	181 (2)	75-125	5	20	53.3	64.8	20	20
Batch number: 112781026001B	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Selenium	99	110	75-125	10	20	0.244 J	0.293 J	18 (1)	20
Batch number: 112781026001C	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Molybdenum	116	134*	75-125	15	20	0.311	0.440	34* (1)	20
Batch number: 112781026001D	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Barium	202 (2)	320 (2)	75-125	10	20	90.1	107	18	20
Batch number: 112785708004	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Aluminum	2148	2670	75-125	4	20	17,300	17,700	2	20
	(2)	(2)							

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Boron	103	101	84-115	2	20	10.8	10.6	2 (1)	20
Calcium	2589 (2)	909 (2)	75-125	5	20	140,000	134,000	4	20
Iron	768 (2)	672 (2)	75-125	0	20	20,200	23,800	16	20
Lithium	101	102	82-114	0	20	17.9	17.7	1	20
Magnesium	151 (2)	293 (2)	75-125	4	20	5,900	5,920	0	20
Manganese	221 (2)	113 (2)	75-125	16	20	269	303	12	20
Phosphorus	99 (2)	107 (2)	75-125	1	20	437	445	2	20
Potassium	148*	171*	75-125	5	20	3,030	3,040	1	20
Sodium	99	99	75-125	1	20	117	108	7 (1)	20
Strontium	93	87	75-115	3	20	151	149	1	20
Tin	81	80	80-110	2	20	1.87 J	1.88 J	0 (1)	20
Zirconium	96	96	81-110	1	20	3.29 J	4.05 J	21* (1)	20
Batch number: 112785711002	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Mercury	92	96	65-135	1	20	0.0178 J	0.0126 J	34* (1)	20
Batch number: 112801026001A	Sample number(s): 6423862-6423864, 6423869-6423871 UNSPK: 6423870 BKG: 6423870								
Copper	130*	117	75-125	7	20	4.86	5.10	5	20
Batch number: 112865708002	Sample number(s): 6423855-6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
Titanium	313 (2)	299 (2)	75-125	2	20	805	816	1	20
Batch number: 11278102201B	Sample number(s): 6423871 UNSPK: P418463 BKG: P418463								
16a Cyanide by 9012B	93		75-125			0.17 U	0.18 U	0 (1)	20
Batch number: 11283243201A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423871 UNSPK: 6423856 BKG: 6423856								
3a Cr VI by EPA 7199	89		75-125			0.39 J	0.51 J	26* (1)	20
Batch number: 11285285202A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423868 UNSPK: 6423856 BKG: 6423856								
7a Perchlorate EPA 314.0	113		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11285285202B	Sample number(s): 6423869-6423871 UNSPK: 6423870 BKG: 6423870								
7a Perchlorate EPA 314.0	99		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11285495201A	Sample number(s): 6423855-6423857, 6423859, 6423862-6423868 UNSPK: 6423856 BKG: 6423856								
11a Anions by 300.0 - Fluoride	72*		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11285495201B	Sample number(s): 6423869-6423871 UNSPK: 6423869 BKG: 6423869								
11a Anions by 300.0 - Fluoride	64*		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11285039402A	Sample number(s): 6423855-6423856, 6423859, 6423862-6423868 BKG: 6423856								
17a pH by 9045C						7.81	7.82	0	3
Batch number: 11285039402B	Sample number(s): 6423869-6423871 BKG: 6423871								
17a pH by 9045C						7.92	7.92	0	3
Batch number: 11278162403B	Sample number(s): 6423855-6423860, 6423862-6423871 BKG: 6423856								
28a Moisture Content by 160.3						3.3	3.3	0	20
Moisture Content by 160.3						3.3	3.3	0	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Moisture Content by 160.3						3.3	3.3	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11284SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6423855	96	103	131*	97	94	97
6423856	90	99	122	94	94	98
6423857	94	101	128	95	93	96
6423858	88	96	115	90	88	88
6423862	93	101	122	96	93	97
6423863	91	98	124	93	89	97
6423864	99	107	129	99	96	100
6423865	98	106	123	97	92	95
6423866	91	98	127	94	90	95
6423867	91	97	118	92	87	99
6423868	89	98	108	94	91	91
6423869	88	95	119	90	88	96
6423870	94	101	117	94	90	99
6423871	91	101	105	95	92	94
Blank	86	94	114	90	98	103
LCS	94	100	127	93	94	96
MS	94	101	128	95	93	96
MSD	88	96	115	90	88	88
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11284SLB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6423855	109	92	119
6423856	100	87	98
6423857	113	89	109
6423858	104	78	94
6423862	102	87	96
6423863	93	82	103
6423864	110	87	98
6423865	126	83	91
6423866	41	32*	37*
6423867	86	75	82
6423868	100	87	95
6423869	89	77	90
6423870	98	84	92
6423871	99	85	95

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

Blank	92	81	90
LCS	100	81	92
MS	113	89	109
MSD	104	78	94

Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11274A34A
Trifluorotoluene-F

6423871	94
Blank	96
LCS	92
MS	96
MSD	98

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11279A20A
Trifluorotoluene-F

6423872	89
Blank	87
LCS	111
LCSD	113

Limits: 63-135

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 112810010A
2,4-Dichlorophenylacetic acid

6423855	80
6423856	107
6423857	113
6423858	86
6423860	113
6423862	78
6423863	53
6423864	93
6423865	67
6423866	97
6423867	103
6423868	108
Blank	76
LCS	65
MS	113
MSD	86

Limits: 36-156

Analysis Name: 12a Pesticides by 8081A
Batch number: 112810037A
Tetrachloro-m-xylene Decachlorobiphenyl

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

6423855	62	121*
6423856	51	89
6423857	58	71
6423858	54	61
6423860	54	57
6423861	55	58
6423862	60	64
6423863	65	83
6423864	58	69
6423865	59	91
6423866	55	60
6423867	65	73
6423868	54	70
Blank	76	106
LCS	83	111
MS	58	71
MSD	54	61

Limits: 50-130 20-120

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112840021A

Tetrachloro-m-xylene Decachlorobiphenyl

6423855	84	81
6423856	87	91
6423857	73	71
6423858	87	96
6423860	83	93
6423861	70	88
6423862	70	63
6423863	88	95
6423864	68	71
6423865	80	89
6423866	88	91
6423867	45*	51
6423868	60	57
6423869	56	65
6423870	84	92
6423871	90	100
Blank	88	94
LCS	77	86
LCSD	87	105
MS	73	71
MSD	87	96

Limits: 53-139 45-120

Analysis Name: 13a Herbicides by EPA 8151

Batch number: 112910026A

2,4-Dichlorophenylacetic
acid

6423861	67
Blank	64
LCS	74

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/14/11 at 01:38 PM

Group Number: 1269114

Surrogate Quality Control

MS 61
MSD 60

Limits: 36-156

Analysis Name: 18a Alcohols by 8015B
Batch number: 112730032A
Acetone

6423871 88
Blank 98
LCS 99
MS 87
MSD 64

Limits: 42-138

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 112790036A
Chlorobenzene Orthoterphenyl

6423871	84	90
Blank	84	90
LCS	87	93
MS	90	92
MSD	86	93

Limits: 37-125 47-145

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112790037A
n-Triacontane-d62

6423871 63
Blank 68
LCS 67
MS 68
MSD 69

Limits: 19-152

Analysis Name: 19a Glycols by 8015B
Batch number: 112790048A
Tetramethylene glycol

6423871 73
Blank 83
LCS 84
MS 74
MSD 73

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct # 13013 Cp# 1269114

Sample # 0423355-72

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Cetr</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X	MS/MSD sample		
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-SS Sleeves			X	X								MS/MSD sample		
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-SS Sleeve			X	X										
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-SS Sleeve			X	X										
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X			
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)														Laboratory:	
<i>[Signature]</i>		09/29/2011 / 1630		<i>[Signature]</i> LT 9/30/11 0930														Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No(s)															
<i>[Signature]</i>				8767 9857 4434; 8767 9858 3520															

Sample # 6423855-70

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetratin under EPA Method 8270C.							*Metals EPA 60106/208&747A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7169	*pH EPA 3045C/8040B	Perchlorate Confirmation by EPA 8650 (10%)	TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	**Formaldehyde EPA 8315A	*m-NDMA EPA 1625C	**Energetics EPA 8330A	*Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	
Samplers Signatures:																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-126-SA7-SB-4.0-5.0	9/29/11	1133	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-127-SA7-SB-4.0-5.0	9/29/11	1000	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-177-SA7-SB-3.5	9/29/11	0845	SOIL	NONE	2-Encores									X													
SL-177-SA7-SB-3.0-4.0	9/29/11	0850	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X		X				X	X	X	X					
TB-092911	9/29/11	1430	WATER	NONE	4-40mL vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																							
		09/29/2011 / 1630																									
Received by: (Signature)		Date/Time		Airbill No(s)																							
				8767 9857 4434; 8767 9858 3520																							
						Laboratory: Lancaster Laboratories, Inc.																					

Nicole Maljovec

From: Nicole Maljovec
Sent: Friday, September 30, 2011 10:10 PM
To: 'Bloisa, Peggy'
Subject: FW: COC for 9/29/2011- Surface samples are missing "-SS"
Attachments: COC_09_29_11.xlsx

One more and then I'm done. The SS is missing in the sample IDs for the surface samples. We added them in. If the -SS- shouldn't be included, please let me know.

Thanks!

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 8:15 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgess, Todd; Zakowski, Cherie; Hartman, Pamela; Laura Rainey
Subject: COC for 9/29/2011

Subsurface sampling continued in Subarea 7. Surface sampling started in Subarea 8 South today.

See attached COC.

Peggy

Peggy Bloisa, P.G.

CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |

| Phone and Fax: (925) 296-8053 |



Please consider the environment before printing this email.

9/30/2011

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 24, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 09/30/2011

Group Number: 1269115

SDG: DX147

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-001-SA8S-SS-0.0-0.5 Soil	6423873
SL-003-SA8S-SS-0.0-0.5 Soil	6423874
SL-003-SA8S-SS-0.0-0.5MS Soil	6423875
SL-003-SA8S-SS-0.0-0.5MSD Soil	6423876
SL-005-SA8S-SS-0.0-0.5 Soil	6423877
SL-007-SA8S-SS-0.0-0.5 Soil	6423878
SL-013-SA8S-SS-0.0-0.5 Soil	6423879
SL-014-SA8S-SS-0.0-0.5 Soil	6423880
SL-015-SA8S-SS-0.0-0.5 Soil	6423881
SL-024-SA8S-SS-0.0-0.5 Soil	6423882
DUP01-SA8S-QC-092911 Soil	6423883
SL-126-SA7-SB-4.0-5.0 Soil	6423884
SL-127-SA7-SB-4.0-5.0 Soil	6423885
SL-177-SA7-SB-3.0-4.0 Soil	6423886

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0366 U	0.0366	1.06	1
11031	12378-PeCDD	40321-76-4	0.0599 J	0.0362	5.28	1
11031	123478-HxCDD	39227-28-6	0.0733 J	0.0329	5.28	1
11031	123678-HxCDD	57653-85-7	0.152 JB	0.0326	5.28	1
11031	123789-HxCDD	19408-74-3	0.125 JB	0.0347	5.28	1
11031	1234678-HpCDD	35822-46-9	2.77 JB	0.0590	5.28	1
11031	OCDD	3268-87-9	19.3 B	0.0762	10.6	1
11031	2378-TCDF	51207-31-9	0.179 JB	0.0436	1.06	1
11031	12378-PeCDF	57117-41-6	0.0941 JBQ	0.0250	5.28	1
11031	23478-PeCDF	57117-31-4	0.381 JB	0.0263	5.28	1
11031	123478-HxCDF	70648-26-9	0.288 JQ	0.0388	5.28	1
11031	123678-HxCDF	57117-44-9	0.133 JBQ	0.0311	5.28	1
11031	123789-HxCDF	72918-21-9	0.0547 JBQ	0.0320	5.28	1
11031	234678-HxCDF	60851-34-5	0.203 JB	0.0242	5.28	1
11031	1234678-HpCDF	67562-39-4	0.592 JB	0.0323	5.28	1
11031	1234789-HpCDF	55673-89-7	0.118 JBQ	0.0499	5.28	1
11031	OCDF	39001-02-0	1.15 JB	0.0920	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	82	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	50	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	57	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	55	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4701 SDG#: DX147-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SS-0.0-0.5

LLI Sample # SW 6423873
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4701 SDG#: DX147-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 13:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0329 U	0.0329	1.02	1
11031	12378-PeCDD	40321-76-4	0.0765 J	0.0313	5.09	1
11031	123478-HxCDD	39227-28-6	0.0692 JQ	0.0320	5.09	1
11031	123678-HxCDD	57653-85-7	0.165 JB	0.0345	5.09	1
11031	123789-HxCDD	19408-74-3	0.163 JBQ	0.0290	5.09	1
11031	1234678-HpCDD	35822-46-9	2.71 JB	0.0405	5.09	1
11031	OCDD	3268-87-9	18.7 B	0.0407	10.2	1
11031	2378-TCDF	51207-31-9	0.196 JB	0.0375	1.02	1
11031	12378-PeCDF	57117-41-6	0.0217 U	0.0217	5.09	1
11031	23478-PeCDF	57117-31-4	0.317 JB	0.0220	5.09	1
11031	123478-HxCDF	70648-26-9	0.220 J	0.0352	5.09	1
11031	123678-HxCDF	57117-44-9	0.113 JBQ	0.0268	5.09	1
11031	123789-HxCDF	72918-21-9	0.0252 U	0.0252	5.09	1
11031	234678-HxCDF	60851-34-5	0.150 JB	0.0209	5.09	1
11031	1234678-HpCDF	67562-39-4	0.574 JB	0.0211	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0457 JB	0.0282	5.09	1
11031	OCDF	39001-02-0	0.882 JB	0.0464	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	51	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423874
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4702 SDG#: DX147-02BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 14:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.2	B	0.0509	1.01	1
11031	12378-PeCDD	40321-76-4	104		0.0575	5.04	1
11031	123478-HxCDD	39227-28-6	105		0.0609	5.04	1
11031	123678-HxCDD	57653-85-7	101	B	0.0607	5.04	1
11031	123789-HxCDD	19408-74-3	102	B	0.0598	5.04	1
11031	1234678-HpCDD	35822-46-9	105	B	0.0721	5.04	1
11031	OCDD	3268-87-9	227	B	0.0818	10.1	1
11031	2378-TCDF	51207-31-9	20.8	B	0.0568	1.01	1
11031	12378-PeCDF	57117-41-6	102	B	0.0363	5.04	1
11031	23478-PeCDF	57117-31-4	99.6	B	0.0369	5.04	1
11031	123478-HxCDF	70648-26-9	96.9		0.113	5.04	1
11031	123678-HxCDF	57117-44-9	99.3	B	0.0879	5.04	1
11031	123789-HxCDF	72918-21-9	101	B	0.0777	5.04	1
11031	234678-HxCDF	60851-34-5	101	B	0.0666	5.04	1
11031	1234678-HpCDF	67562-39-4	98.7	B	0.0736	5.04	1
11031	1234789-HpCDF	55673-89-7	101	B	0.105	5.04	1
11031	OCDF	39001-02-0	207	B	0.0905	10.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423875
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 18:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg		ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.9	B	0.0570	0.996	1
11031	12378-PeCDD	40321-76-4	104		0.0531	4.98	1
11031	123478-HxCDD	39227-28-6	103		0.0592	4.98	1
11031	123678-HxCDD	57653-85-7	98.8	B	0.0654	4.98	1
11031	123789-HxCDD	19408-74-3	99.7	B	0.0609	4.98	1
11031	1234678-HpCDD	35822-46-9	102	B	0.0664	4.98	1
11031	OCDD	3268-87-9	216	B	0.0637	9.96	1
11031	2378-TCDF	51207-31-9	20.0	B	0.0551	0.996	1
11031	12378-PeCDF	57117-41-6	100	B	0.0368	4.98	1
11031	23478-PeCDF	57117-31-4	98.5	B	0.0364	4.98	1
11031	123478-HxCDF	70648-26-9	99.6		0.106	4.98	1
11031	123678-HxCDF	57117-44-9	98.5	B	0.0920	4.98	1
11031	123789-HxCDF	72918-21-9	100	B	0.0885	4.98	1
11031	234678-HxCDF	60851-34-5	100	B	0.0785	4.98	1
11031	1234678-HpCDF	67562-39-4	97.7	B	0.0576	4.98	1
11031	1234789-HpCDF	55673-89-7	99.5	B	0.0768	4.98	1
11031	OCDF	39001-02-0	201	B	0.0685	9.96	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	49	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-003-SA8S-SS-0.0-0.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-003-SA8S-SS-0.0-0.5

LLI Sample # SW 6423876
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 09:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4702 SDG#: DX147-02MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 19:04	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0367 U	0.0367	1.02	1
11031	12378-PeCDD	40321-76-4	0.0587 JQ	0.0286	5.09	1
11031	123478-HxCDD	39227-28-6	0.0315 J	0.0252	5.09	1
11031	123678-HxCDD	57653-85-7	0.0811 JBQ	0.0273	5.09	1
11031	123789-HxCDD	19408-74-3	0.0560 JB	0.0238	5.09	1
11031	1234678-HpCDD	35822-46-9	0.781 JB	0.0297	5.09	1
11031	OCDD	3268-87-9	5.28 JB	0.0248	10.2	1
11031	2378-TCDF	51207-31-9	0.0324 U	0.0324	1.02	1
11031	12378-PeCDF	57117-41-6	0.0389 JB	0.0198	5.09	1
11031	23478-PeCDF	57117-31-4	0.0720 JBQ	0.0189	5.09	1
11031	123478-HxCDF	70648-26-9	0.0398 JQ	0.0348	5.09	1
11031	123678-HxCDF	57117-44-9	0.0340 JB	0.0326	5.09	1
11031	123789-HxCDF	72918-21-9	0.0374 JBQ	0.0192	5.09	1
11031	234678-HxCDF	60851-34-5	0.0512 JB	0.0162	5.09	1
11031	1234678-HpCDF	67562-39-4	0.151 JB	0.0191	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0559 JB	0.0189	5.09	1
11031	OCDF	39001-02-0	0.353 JB	0.0407	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	76	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	58	21 - 178
13C12-123478-HxCDF	29	26 - 152
13C12-123678-HxCDF	31	26 - 123
13C12-234678-HxCDF	58	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	45	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-005-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SS-0.0-0.5

LLI Sample # SW 6423877
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4703 SDG#: DX147-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 20:01	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0363 U	0.0363	1.03	1
11031	12378-PeCDD	40321-76-4	0.0474 JQ	0.0270	5.14	1
11031	123478-HxCDD	39227-28-6	0.0397 JQ	0.0280	5.14	1
11031	123678-HxCDD	57653-85-7	0.119 JB	0.0270	5.14	1
11031	123789-HxCDD	19408-74-3	0.118 JBQ	0.0273	5.14	1
11031	1234678-HpCDD	35822-46-9	2.29 JB	0.0341	5.14	1
11031	OCDD	3268-87-9	30.0 B	0.0315	10.3	1
11031	2378-TCDF	51207-31-9	0.0545 JB	0.0312	1.03	1
11031	12378-PeCDF	57117-41-6	0.0178 U	0.0178	5.14	1
11031	23478-PeCDF	57117-31-4	0.0428 JBQ	0.0171	5.14	1
11031	123478-HxCDF	70648-26-9	0.0598 JQ	0.0255	5.14	1
11031	123678-HxCDF	57117-44-9	0.0674 JB	0.0227	5.14	1
11031	123789-HxCDF	72918-21-9	0.0505 JBQ	0.0178	5.14	1
11031	234678-HxCDF	60851-34-5	0.0823 JBQ	0.0153	5.14	1
11031	1234678-HpCDF	67562-39-4	0.474 JB	0.0190	5.14	1
11031	1234789-HpCDF	55673-89-7	0.0508 JB	0.0211	5.14	1
11031	OCDF	39001-02-0	0.884 JB	0.0379	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	45	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4704 SDG#: DX147-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SS-0.0-0.5

LLI Sample # SW 6423878
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4704 SDG#: DX147-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 20:58	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0342 U	0.0342	1.03	1
11031	12378-PeCDD	40321-76-4	0.188 J	0.0333	5.14	1
11031	123478-HxCDD	39227-28-6	0.224 J	0.0317	5.14	1
11031	123678-HxCDD	57653-85-7	0.253 JB	0.0310	5.14	1
11031	123789-HxCDD	19408-74-3	0.289 JB	0.0323	5.14	1
11031	1234678-HpCDD	35822-46-9	2.17 JB	0.0342	5.14	1
11031	OCDD	3268-87-9	14.2 B	0.0314	10.3	1
11031	2378-TCDF	51207-31-9	0.183 JB	0.0618	1.03	1
11031	12378-PeCDF	57117-41-6	0.268 JBQ	0.0288	5.14	1
11031	23478-PeCDF	57117-31-4	0.601 JB	0.0291	5.14	1
11031	123478-HxCDF	70648-26-9	0.438 J	0.0445	5.14	1
11031	123678-HxCDF	57117-44-9	0.372 JBQ	0.0382	5.14	1
11031	123789-HxCDF	72918-21-9	0.222 JBQ	0.0314	5.14	1
11031	234678-HxCDF	60851-34-5	0.311 JB	0.0265	5.14	1
11031	1234678-HpCDF	67562-39-4	0.756 JB	0.0242	5.14	1
11031	1234789-HpCDF	55673-89-7	0.211 JBQ	0.0263	5.14	1
11031	OCDF	39001-02-0	1.27 JB	0.0324	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	41	26 - 152
13C12-123678-HxCDF	50	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	77	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4705 SDG#: DX147-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SS-0.0-0.5

LLI Sample # SW 6423879
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4705 SDG#: DX147-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 21:54	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0317 U	0.0317	1.04	1
11031	12378-PeCDD	40321-76-4	0.164 J	0.0295	5.20	1
11031	123478-HxCDD	39227-28-6	0.194 J	0.0411	5.20	1
11031	123678-HxCDD	57653-85-7	0.247 JB	0.0443	5.20	1
11031	123789-HxCDD	19408-74-3	0.210 JBQ	0.0377	5.20	1
11031	1234678-HpCDD	35822-46-9	6.20 B	0.0420	5.20	1
11031	OCDD	3268-87-9	64.7 B	0.0439	10.4	1
11031	2378-TCDF	51207-31-9	0.0992 JB	0.0421	1.04	1
11031	12378-PeCDF	57117-41-6	0.220 JB	0.0239	5.20	1
11031	23478-PeCDF	57117-31-4	0.409 JB	0.0245	5.20	1
11031	123478-HxCDF	70648-26-9	0.220 J	0.0344	5.20	1
11031	123678-HxCDF	57117-44-9	0.172 JB	0.0266	5.20	1
11031	123789-HxCDF	72918-21-9	0.0228 U	0.0228	5.20	1
11031	234678-HxCDF	60851-34-5	0.184 JB	0.0193	5.20	1
11031	1234678-HpCDF	67562-39-4	0.690 JB	0.0225	5.20	1
11031	1234789-HpCDF	55673-89-7	0.0761 JBQ	0.0259	5.20	1
11031	OCDF	39001-02-0	1.33 JB	0.0312	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	40	26 - 152
13C12-123678-HxCDF	49	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-014-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SS-0.0-0.5

LLI Sample # SW 6423880
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4706 SDG#: DX147-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/15/2011 22:51	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0310 U	0.0310	1.03	1
11031	12378-PeCDD	40321-76-4	0.0439 JB	0.0285	5.14	1
11031	123478-HxCDD	39227-28-6	0.0940 JBQ	0.0360	5.14	1
11031	123678-HxCDD	57653-85-7	0.169 JBQ	0.0345	5.14	1
11031	123789-HxCDD	19408-74-3	0.0999 JB	0.0333	5.14	1
11031	1234678-HpCDD	35822-46-9	5.08 JB	0.0435	5.14	1
11031	OCDD	3268-87-9	86.6 B	0.0477	10.3	1
11031	2378-TCDF	51207-31-9	0.0580 JQ	0.0372	1.03	1
11031	12378-PeCDF	57117-41-6	0.0687 JB	0.0184	5.14	1
11031	23478-PeCDF	57117-31-4	0.220 JBQ	0.0185	5.14	1
11031	123478-HxCDF	70648-26-9	0.189 JBQ	0.0463	5.14	1
11031	123678-HxCDF	57117-44-9	0.129 JBQ	0.0412	5.14	1
11031	123789-HxCDF	72918-21-9	0.0687 JQ	0.0240	5.14	1
11031	234678-HxCDF	60851-34-5	0.178 JB	0.0190	5.14	1
11031	1234678-HpCDF	67562-39-4	0.862 JB	0.0254	5.14	1
11031	1234789-HpCDF	55673-89-7	0.108 JB	0.0244	5.14	1
11031	OCDF	39001-02-0	0.875 JB	0.0367	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	32	26 - 152
13C12-123678-HxCDF	36	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-015-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SS-0.0-0.5

LLI Sample # SW 6423881
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4707 SDG#: DX147-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 03:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0482 JQ	0.0321	1.00	1
11031	12378-PeCDD	40321-76-4	0.0493 JBQ	0.0288	5.00	1
11031	123478-HxCDD	39227-28-6	0.137 JBQ	0.0388	5.00	1
11031	123678-HxCDD	57653-85-7	0.225 JB	0.0417	5.00	1
11031	123789-HxCDD	19408-74-3	0.183 JBQ	0.0314	5.00	1
11031	1234678-HpCDD	35822-46-9	3.94 JB	0.0303	5.00	1
11031	OCDD	3268-87-9	27.7 B	0.0323	10.0	1
11031	2378-TCDF	51207-31-9	0.282 J	0.0531	1.00	1
11031	12378-PeCDF	57117-41-6	0.190 JB	0.0273	5.00	1
11031	23478-PeCDF	57117-31-4	0.0436 JBQ	0.0256	5.00	1
11031	123478-HxCDF	70648-26-9	0.179 JBQ	0.0242	5.00	1
11031	123678-HxCDF	57117-44-9	0.138 JB	0.0222	5.00	1
11031	123789-HxCDF	72918-21-9	0.0642 JQ	0.0265	5.00	1
11031	234678-HxCDF	60851-34-5	0.190 JBQ	0.0224	5.00	1
11031	1234678-HpCDF	67562-39-4	0.772 JB	0.0181	5.00	1
11031	1234789-HpCDF	55673-89-7	0.0874 JBQ	0.0267	5.00	1
11031	OCDF	39001-02-0	1.26 JB	0.0253	10.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4708 SDG#: DX147-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SS-0.0-0.5

LLI Sample # SW 6423882
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 14:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 09/30/2011 09:30

Suite 210

Reported: 10/24/2011 14:49

Chantilly VA 20151

X4708 SDG#: DX147-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 04:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	3.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0275 U	0.0275	1.03	1
11031	12378-PeCDD	40321-76-4	0.0846 JQ	0.0258	5.15	1
11031	123478-HxCDD	39227-28-6	0.0704 JQ	0.0271	5.15	1
11031	123678-HxCDD	57653-85-7	0.193 JB	0.0260	5.15	1
11031	123789-HxCDD	19408-74-3	0.138 JB	0.0256	5.15	1
11031	1234678-HpCDD	35822-46-9	3.04 JB	0.0303	5.15	1
11031	OCDD	3268-87-9	27.5 B	0.0265	10.3	1
11031	2378-TCDF	51207-31-9	0.265 JB	0.0349	1.03	1
11031	12378-PeCDF	57117-41-6	0.0763 JB	0.0215	5.15	1
11031	23478-PeCDF	57117-31-4	0.233 JB	0.0220	5.15	1
11031	123478-HxCDF	70648-26-9	0.361 J	0.0281	5.15	1
11031	123678-HxCDF	57117-44-9	0.148 JB	0.0233	5.15	1
11031	123789-HxCDF	72918-21-9	0.0609 JB	0.0205	5.15	1
11031	234678-HxCDF	60851-34-5	0.149 JB	0.0186	5.15	1
11031	1234678-HpCDF	67562-39-4	0.615 JBQ	0.0183	5.15	1
11031	1234789-HpCDF	55673-89-7	0.0624 JBQ	0.0245	5.15	1
11031	OCDF	39001-02-0	1.00 JB	0.0284	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	91	28 - 130
13C12-123789-HxCDD	90	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	47	26 - 152
13C12-123678-HxCDF	56	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	72	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: DUP01-SA8S-QC-092911 Soil
SSFL Area IV Collocated Soil Sampling
DUP01-SA8S-QC-092911

LLI Sample # SW 6423883
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4709 SDG#: DX147-09FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/16/2011 01:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0347 U	0.0347	1.07	1
11031	12378-PeCDD	40321-76-4	0.0266 U	0.0266	5.35	1
11031	123478-HxCDD	39227-28-6	0.0226 U	0.0226	5.35	1
11031	123678-HxCDD	57653-85-7	0.124 JB	0.0231	5.35	1
11031	123789-HxCDD	19408-74-3	0.234 JB	0.0209	5.35	1
11031	1234678-HpCDD	35822-46-9	0.211 JBQ	0.0217	5.35	1
11031	OCDD	3268-87-9	0.577 JB	0.0193	10.7	1
11031	2378-TCDF	51207-31-9	0.0249 U	0.0249	1.07	1
11031	12378-PeCDF	57117-41-6	0.0429 JB	0.0155	5.35	1
11031	23478-PeCDF	57117-31-4	0.0412 JB	0.0145	5.35	1
11031	123478-HxCDF	70648-26-9	0.0232 U	0.0232	5.35	1
11031	123678-HxCDF	57117-44-9	0.0200 U	0.0200	5.35	1
11031	123789-HxCDF	72918-21-9	0.210 JBQ	0.0136	5.35	1
11031	234678-HxCDF	60851-34-5	0.0159 JB	0.0120	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0901 JBQ	0.0170	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0193 JB	0.0156	5.35	1
11031	OCDF	39001-02-0	0.124 JBQ	0.0278	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	36	26 - 152
13C12-123678-HxCDF	41	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	69	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-126-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-126-SA7-SB-4.0-5.0

LLI Sample # SW 6423884
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 11:33

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4710 SDG#: DX147-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/16/2011 02:37	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	4.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0177 U	0.0177	1.02	1
11031	12378-PeCDD	40321-76-4	0.0360 J	0.0167	5.11	1
11031	123478-HxCDD	39227-28-6	0.0219 J	0.0146	5.11	1
11031	123678-HxCDD	57653-85-7	0.0346 JB	0.0158	5.11	1
11031	123789-HxCDD	19408-74-3	0.0636 JBQ	0.0146	5.11	1
11031	1234678-HpCDD	35822-46-9	0.284 JB	0.0175	5.11	1
11031	OCDD	3268-87-9	0.862 JB	0.0149	10.2	1
11031	2378-TCDF	51207-31-9	0.0162 U	0.0162	1.02	1
11031	12378-PeCDF	57117-41-6	0.0254 JBQ	0.00973	5.11	1
11031	23478-PeCDF	57117-31-4	0.0610 JBQ	0.00952	5.11	1
11031	123478-HxCDF	70648-26-9	0.0196 U	0.0196	5.11	1
11031	123678-HxCDF	57117-44-9	0.0482 JBQ	0.0180	5.11	1
11031	123789-HxCDF	72918-21-9	0.0500 JBQ	0.0119	5.11	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.0104	5.11	1
11031	1234678-HpCDF	67562-39-4	0.163 JB	0.0112	5.11	1
11031	1234789-HpCDF	55673-89-7	0.0235 JBQ	0.0114	5.11	1
11031	OCDF	39001-02-0	0.230 JB	0.0225	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	35	26 - 152
13C12-123678-HxCDF	40	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-127-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-127-SA7-SB-4.0-5.0

LLI Sample # SW 6423885
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 10:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4711 SDG#: DX147-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11286001	10/18/2011 02:42	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11286001	10/13/2011 12:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0319 JQ	0.0314	1.06	1
11031	12378-PeCDD	40321-76-4	0.0346 JBQ	0.0234	5.28	1
11031	123478-HxCDD	39227-28-6	0.0217 U	0.0217	5.28	1
11031	123678-HxCDD	57653-85-7	0.0551 JBQ	0.0204	5.28	1
11031	123789-HxCDD	19408-74-3	0.0930 JBQ	0.0202	5.28	1
11031	1234678-HpCDD	35822-46-9	0.339 JB	0.0214	5.28	1
11031	OCDD	3268-87-9	1.15 JB	0.0208	10.6	1
11031	2378-TCDF	51207-31-9	0.0344 JQ	0.0252	1.06	1
11031	12378-PeCDF	57117-41-6	0.0291 JBQ	0.0138	5.28	1
11031	23478-PeCDF	57117-31-4	0.0135 U	0.0135	5.28	1
11031	123478-HxCDF	70648-26-9	0.0413 JBQ	0.0161	5.28	1
11031	123678-HxCDF	57117-44-9	0.0191 JBQ	0.0139	5.28	1
11031	123789-HxCDF	72918-21-9	0.0556 JQ	0.0176	5.28	1
11031	234678-HxCDF	60851-34-5	0.0511 JBQ	0.0147	5.28	1
11031	1234678-HpCDF	67562-39-4	0.135 JBQ	0.0113	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0411 JBQ	0.0186	5.28	1
11031	OCDF	39001-02-0	0.179 JB	0.0316	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-177-SA7-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-177-SA7-SB-3.0-4.0

LLI Sample # SW 6423886
LLI Group # 1269115
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/29/2011 08:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 09/30/2011 09:30

Reported: 10/24/2011 14:49

X4712 SDG#: DX147-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11292003	10/21/2011 05:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11292003	10/19/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11278162403B	10/05/2011 20:16	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11278162403B Moisture Content by 160.3	Sample number(s): 6423873-6423886				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11286001	Sample number(s): 6423873-6423880, 6423883-6423885								
2378-TCDD	0.0626 J	0.0378	1.00	ng/kg	104		67-158		
12378-PeCDD	0.0319 U	0.0319	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0204 U	0.0204	5.00	ng/kg	103		70-164		
123678-HxCDD	0.0344 J	0.0212	5.00	ng/kg	96		76-134		
123789-HxCDD	0.0271 J	0.0204	5.00	ng/kg	100		64-162		
1234678-HpCDD	0.202 J	0.0320	5.00	ng/kg	99		70-140		
OCDD	0.380 J	0.0230	10.0	ng/kg	97		78-144		
2378-TCDF	0.0391 J	0.0342	1.00	ng/kg	107		75-158		
12378-PeCDF	0.0281 J	0.0158	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0553 J	0.0164	5.00	ng/kg	97		68-160		
123478-HxCDF	0.0239 U	0.0239	5.00	ng/kg	98		72-134		
123678-HxCDF	0.0263 J	0.0195	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0293 J	0.0175	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0606 J	0.0151	5.00	ng/kg	98		70-156		
1234678-HpCDF	0.0913 J	0.0121	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0260 J	0.0168	5.00	ng/kg	98		78-138		
OCDF	0.189 J	0.0416	10.0	ng/kg	99		63-170		

Batch number: 11292003	Sample number(s): 6423881-6423882, 6423886								
2378-TCDD	0.0344 U	0.0344	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0488 J	0.0288	5.00	ng/kg	99		70-142		
123478-HxCDD	0.0310 J	0.0190	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0294 J	0.0192	5.00	ng/kg	92		76-134		
123789-HxCDD	0.0415 J	0.0191	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.305 J	0.0224	5.00	ng/kg	95		70-140		
OCDD	0.653 J	0.0196	10.0	ng/kg	93		78-144		
2378-TCDF	0.0262 U	0.0262	1.00	ng/kg	95		75-158		
12378-PeCDF	0.0392 J	0.0149	5.00	ng/kg	98		80-134		
23478-PeCDF	0.0693 J	0.0140	5.00	ng/kg	92		68-160		
123478-HxCDF	0.114 J	0.0232	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0822 J	0.0204	5.00	ng/kg	97		84-130		
123789-HxCDF	0.0174 U	0.0174	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0874 J	0.0146	5.00	ng/kg	93		70-156		
1234678-HpCDF	0.370 J	0.0160	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0805 J	0.0189	5.00	ng/kg	93		78-138		
OCDF	0.256 J	0.0304	10.0	ng/kg	94		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11278162403B Moisture Content by 160.3	Sample number(s): 6423873-6423886 BKG: P423856 3.3 3.3 0 20								
Batch number: 11286001	Sample number(s): 6423873-6423880, 6423883-6423885 UNSPK: 6423874								
2378-TCDD	105	105	67-158	1	25				
12378-PeCDD	103	104	70-142	1	25				
123478-HxCDD	104	103	70-164	2	25				
123678-HxCDD	100	99	76-134	2	25				
123789-HxCDD	101	100	64-162	2	25				
1234678-HpCDD	102	100	70-140	3	25				
OCDD	103	99	78-144	5	25				
2378-TCDF	102	99	75-158	4	25				
12378-PeCDF	101	101	80-134	2	25				
23478-PeCDF	98	99	68-160	1	25				
123478-HxCDF	96	100	72-134	3	25				
123678-HxCDF	98	99	84-130	1	25				
123789-HxCDF	100	100	78-130	1	25				
234678-HxCDF	100	100	70-156	1	25				
1234678-HpCDF	97	97	82-122	1	25				
1234789-HpCDF	100	100	78-138	1	25				
OCDF	102	100	63-170	3	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11286001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6423873	74	63	40	50	63	57
6423874	72	63	41	51	64	62
6423875	74	67	40	52	68	71
6423876	72	66	49	56	66	67
6423877	60	58	29	31	58	60
6423878	68	65	41	45	65	67
6423879	75	69	41	50	70	69
6423880	77	71	40	49	66	68
6423883	78	70	47	56	70	74
6423884	67	66	36	41	65	67
6423885	67	63	35	40	65	68
Blank	82	75	48	60	76	77
MS	74	67	40	52	68	71
MSD	72	66	49	56	66	67
OPR	69	59	40	53	63	56

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Surrogate Quality Control

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6423873	69	56	55	74	78	81
6423874	67	62	62	71	80	77
6423875	72	64	66	76	79	83
6423876	71	64	65	71	80	81
6423877	45	57	59	64	71	70
6423878	61	67	73	73	78	83
6423879	63	69	77	76	83	90
6423880	61	65	64	78	81	78
6423883	73	70	72	78	85	91
6423884	53	66	69	72	76	76
6423885	53	63	64	69	74	74
Blank	86	74	75	85	92	93
MS	72	64	66	76	79	83
MSD	71	64	65	71	80	81
OPR	78	55	55	73	82	84

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6423873	79	82	82	66	75	
6423874	83	84	85	66	71	
6423875	83	87	92	69	78	
6423876	83	85	85	70	72	
6423877	73	76	76	56	63	
6423878	78	85	92	63	71	
6423879	84	88	95	70	77	
6423880	86	90	85	73	79	
6423883	90	91	92	74	80	
6423884	82	85	86	65	71	
6423885	76	80	82	65	70	
Blank	93	100	105	74	84	
MS	83	87	92	69	78	
MSD	83	85	85	70	72	
OPR	82	87	90	59	70	

Limits:	28-130	23-140	17-157	24-169	24-185	
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6423881	73	67	32	36	71	68
6423882	71	67	66	73	70	70
6423886	64	62	63	71	67	63
Blank	76	75	52	58	82	79
OPR	69	67	53	59	70	68

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6423881	54	69	73	72	79	81

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/24/11 at 02:49 PM

Group Number: 1269115

Surrogate Quality Control

6423882	85	70	73	68	70	66
6423886	90	66	70	68	77	84
Blank	81	85	90	80	89	93
OPR	80	70	73	74	81	80
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6423881	81	87	91	71	74	
6423882	82	86	88	68	71	
6423886	82	86	92	60	68	
Blank	93	102	109	71	77	
OPR	83	89	92	64	72	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct # 13013 Ap# 1269115

Sample# 6423873-86

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6650 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signatures: <i>Vidal Cordero</i>																			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-16 oz Jar	X	X				X	X	X	X		X	X		
SL-001-SA8S-0.0-0.5	9/29/11	1125	SOIL	NONE	1-SS Sleeve			X	X										
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-16 oz Jars	X	X		X		X	X	X	X		X	X	MS/MSD sample	
SL-003-SA8S-0.0-0.5MS	9/29/11	0955	SOIL	NONE	2-SS Sleeves			X	X									MS/MSD sample	
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-005-SA8S-0.0-0.5	9/29/11	0840	SOIL	NONE	1-SS Sleeve			X	X										
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-007-SA8S-0.0-0.5	9/29/11	0800	SOIL	NONE	1-SS Sleeve			X	X										
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-013-SA8S-0.0-0.5	9/29/11	1455	SOIL	NONE	1-SS Sleeve			X	X										
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-014-SA8S-0.0-0.5	9/29/11	1510	SOIL	NONE	1-SS Sleeve			X	X										
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-015-SA8S-0.0-0.5	9/29/11	1530	SOIL	NONE	1-SS Sleeve			X	X										
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
SL-024-SA8S-0.0-0.5	9/29/11	1415	SOIL	NONE	1-SS Sleeve			X	X										
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			X	X		
DUP01-SA8S-QC-092911	9/29/11	1005	SOIL	NONE	1-SS Sleeve			X	X										
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)														Laboratory:	
<i>Don Min</i>		09/29/2011 / 1630		<i>Har H/L</i> <i>LI</i> 9/30/11 0930														Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No(s)															
				8767 9857 4434; 8767 9858 3520															

acc#13013 Cp#1269115

Sample# 6423373-SB

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.						*Metals EPA 8010/8020/821A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chroma EPA 7169	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8950 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Emergals EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Downal EPA 8270	
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-126-SA7-SB-4.0-5.0	9/29/11	1133	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-127-SA7-SB-4.0-5.0	9/29/11	1000	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X													
SL-177-SA7-SB-3.5	9/29/11	0845	SOIL	NONE	2-Encores										X											
SL-177-SA7-SB-3.0-4.0	9/29/11	0850	SOIL	NONE	3-16 oz Jars	X	X	X	X	X	X	X	X			X					X	X	X	X		
TB-092911	9/29/11	1430	WATER	NONE	4-40mL vials										X											
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:
		09/29/2011 / 1630																								Lancaster Laboratories, Inc.
Received by: (Signature)		Date/Time		Airbill No.(s)																						
				8767 9857 4434; 8767 9858 3520																						

Nicole Maljovec

From: Nicole Maljovec
Sent: Friday, September 30, 2011 10:10 PM
To: 'Bloisa, Peggy'
Subject: FW: COC for 9/29/2011- Surface samples are missing "-SS"
Attachments: COC_09_29_11.xlsx

One more and then I'm done. The SS is missing in the sample IDs for the surface samples. We added them in. If the -SS- shouldn't be included, please let me know.

Thanks!

From: Bloisa, Peggy [mailto:BloisaMJ@cdm.com]
Sent: Thursday, September 29, 2011 8:15 PM
To: Nicole Maljovec; SA Env Entry
Cc: Burgesser, Todd; Zakowski, Cherie; Hartman, Pamela; Laura Rainey
Subject: COC for 9/29/2011

Subsurface sampling continued in Subarea 7. Surface sampling started in Subarea 8 South today.

See attached COC.

Peggy

Peggy Bloisa, P.G.
CDM

| 100 Pringle Avenue Suite 300 | Walnut Creek, CA 94596 |
| Phone and Fax: (925) 296-8053 |

 Please consider the environment before printing this email.

9/30/2011

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/01/2011

Group Number: 1269322

SDG: DX145

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-008-SA8S-SS-0.0-0.5 Soil	6426134
SL-009-SA8S-SS-0.0-0.5 Soil	6426135
SL-010-SA8S-SS-0.0-0.5 Soil	6426136
SL-011-SA8S-SS-0.0-0.5 Soil	6426137
SL-012-SA8S-SS-0.0-0.5 Soil	6426138
SL-016-SA8S-SS-0.0-0.5 Soil	6426139
SL-017-SA8S-SS-0.0-0.5 Soil	6426140
SL-018-SA8S-SS-0.0-0.5 Soil	6426141
SL-019-SA8S-SS-0.0-0.5 Soil	6426142
SL-020-SA8S-SS-0.0-0.5 Soil	6426143
SL-021-SA8S-SS-0.0-0.5 Soil	6426144

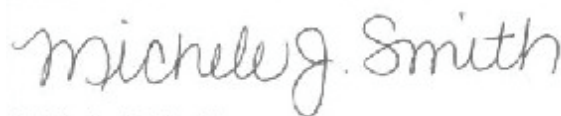
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgesser

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0366 JQ	0.0271	1.07	1
11031	12378-PeCDD	40321-76-4	0.118 J	0.0297	5.34	1
11031	123478-HxCDD	39227-28-6	0.148 J	0.0353	5.34	1
11031	123678-HxCDD	57653-85-7	0.304 JB	0.0348	5.34	1
11031	123789-HxCDD	19408-74-3	0.269 J	0.0364	5.34	1
11031	1234678-HpCDD	35822-46-9	4.59 JB	0.0311	5.34	1
11031	OCDD	3268-87-9	32.0 B	0.0288	10.7	1
11031	2378-TCDF	51207-31-9	0.658 J	0.0803	1.07	1
11031	12378-PeCDF	57117-41-6	0.222 JB	0.0443	5.34	1
11031	23478-PeCDF	57117-31-4	1.64 JB	0.0444	5.34	1
11031	123478-HxCDF	70648-26-9	0.474 JB	0.0314	5.34	1
11031	123678-HxCDF	57117-44-9	0.285 JB	0.0274	5.34	1
11031	123789-HxCDF	72918-21-9	0.0528 JBQ	0.0316	5.34	1
11031	234678-HxCDF	60851-34-5	0.394 JB	0.0272	5.34	1
11031	1234678-HpCDF	67562-39-4	1.32 JB	0.0168	5.34	1
11031	1234789-HpCDF	55673-89-7	0.121 JBQ	0.0242	5.34	1
11031	OCDF	39001-02-0	1.84 JB	0.0247	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SS-0.0-0.5

LLI Sample # SW 6426134
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4510 SDG#: DX145-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/12/2011 12:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0281 U	0.0281	1.04	1
11031	12378-PeCDD	40321-76-4	0.0440 JQ	0.0234	5.21	1
11031	123478-HxCDD	39227-28-6	0.0738 J	0.0317	5.21	1
11031	123678-HxCDD	57653-85-7	0.137 JB	0.0316	5.21	1
11031	123789-HxCDD	19408-74-3	0.164 J	0.0508	5.21	1
11031	1234678-HpCDD	35822-46-9	2.62 JB	0.0245	5.21	1
11031	OCDD	3268-87-9	18.0 B	0.0306	10.4	1
11031	2378-TCDF	51207-31-9	0.173 J	0.0493	1.04	1
11031	12378-PeCDF	57117-41-6	0.0713 JB	0.0250	5.21	1
11031	23478-PeCDF	57117-31-4	0.403 JBQ	0.0249	5.21	1
11031	123478-HxCDF	70648-26-9	0.100 JB	0.0199	5.21	1
11031	123678-HxCDF	57117-44-9	0.0820 JBQ	0.0181	5.21	1
11031	123789-HxCDF	72918-21-9	0.0441 JBQ	0.0233	5.21	1
11031	234678-HxCDF	60851-34-5	0.120 JBQ	0.0192	5.21	1
11031	1234678-HpCDF	67562-39-4	0.591 JB	0.0200	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0552 JBQ	0.0335	5.21	1
11031	OCDF	39001-02-0	0.948 JB	0.0284	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SS-0.0-0.5

LLI Sample # SW 6426135
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4511 SDG#: DX145-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/12/2011 13:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0495 JQ	0.0373	1.04	1
11031	12378-PeCDD	40321-76-4	0.187 JQ	0.0334	5.21	1
11031	123478-HxCDD	39227-28-6	0.115 JQ	0.0487	5.21	1
11031	123678-HxCDD	57653-85-7	0.430 JBQ	0.0478	5.21	1
11031	123789-HxCDD	19408-74-3	0.296 J	0.0461	5.21	1
11031	1234678-HpCDD	35822-46-9	5.41 B	0.0412	5.21	1
11031	OCDD	3268-87-9	35.5 B	0.0350	10.4	1
11031	2378-TCDF	51207-31-9	0.851 JQ	0.0759	1.04	1
11031	12378-PeCDF	57117-41-6	0.271 JBQ	0.0370	5.21	1
11031	23478-PeCDF	57117-31-4	1.10 JB	0.0377	5.21	1
11031	123478-HxCDF	70648-26-9	0.449 JB	0.0459	5.21	1
11031	123678-HxCDF	57117-44-9	0.281 JB	0.0354	5.21	1
11031	123789-HxCDF	72918-21-9	0.134 JB	0.0451	5.21	1
11031	234678-HxCDF	60851-34-5	0.438 JB	0.0370	5.21	1
11031	1234678-HpCDF	67562-39-4	1.31 JB	0.0204	5.21	1
11031	1234789-HpCDF	55673-89-7	0.128 JB	0.0334	5.21	1
11031	OCDF	39001-02-0	1.93 JB	0.0441	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4512 SDG#: DX145-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SS-0.0-0.5

LLI Sample # SW 6426136
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4512 SDG#: DX145-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 04:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0390 U	0.0390	1.06	1
11031	12378-PeCDD	40321-76-4	0.124 JQ	0.0356	5.29	1
11031	123478-HxCDD	39227-28-6	0.109 J	0.0460	5.29	1
11031	123678-HxCDD	57653-85-7	0.320 JB	0.0490	5.29	1
11031	123789-HxCDD	19408-74-3	0.268 J	0.0446	5.29	1
11031	1234678-HpCDD	35822-46-9	5.79 B	0.0390	5.29	1
11031	OCDD	3268-87-9	43.9 B	0.0349	10.6	1
11031	2378-TCDF	51207-31-9	0.451 J	0.0709	1.06	1
11031	12378-PeCDF	57117-41-6	0.167 JBQ	0.0389	5.29	1
11031	23478-PeCDF	57117-31-4	0.191 JBQ	0.0367	5.29	1
11031	123478-HxCDF	70648-26-9	0.276 JBQ	0.0357	5.29	1
11031	123678-HxCDF	57117-44-9	0.163 JBQ	0.0315	5.29	1
11031	123789-HxCDF	72918-21-9	0.0554 JBQ	0.0381	5.29	1
11031	234678-HxCDF	60851-34-5	0.300 JB	0.0343	5.29	1
11031	1234678-HpCDF	67562-39-4	1.21 JB	0.0220	5.29	1
11031	1234789-HpCDF	55673-89-7	0.120 JBQ	0.0324	5.29	1
11031	OCDF	39001-02-0	1.89 JB	0.0353	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4513 SDG#: DX145-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SS-0.0-0.5

LLI Sample # SW 6426137
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4513 SDG#: DX145-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 05:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0332 U	0.0332	1.05	1
11031	12378-PeCDD	40321-76-4	0.0769 JQ	0.0306	5.27	1
11031	123478-HxCDD	39227-28-6	0.141 JQ	0.0320	5.27	1
11031	123678-HxCDD	57653-85-7	0.204 JBQ	0.0337	5.27	1
11031	123789-HxCDD	19408-74-3	0.202 JQ	0.0496	5.27	1
11031	1234678-HpCDD	35822-46-9	3.22 JB	0.0323	5.27	1
11031	OCDD	3268-87-9	26.4 B	0.0276	10.5	1
11031	2378-TCDF	51207-31-9	0.195 JQ	0.0454	1.05	1
11031	12378-PeCDF	57117-41-6	0.144 JBQ	0.0273	5.27	1
11031	23478-PeCDF	57117-31-4	0.205 JBQ	0.0268	5.27	1
11031	123478-HxCDF	70648-26-9	0.246 JBQ	0.0303	5.27	1
11031	123678-HxCDF	57117-44-9	0.139 JB	0.0267	5.27	1
11031	123789-HxCDF	72918-21-9	0.0897 JBQ	0.0343	5.27	1
11031	234678-HxCDF	60851-34-5	0.235 JB	0.0285	5.27	1
11031	1234678-HpCDF	67562-39-4	0.803 JB	0.0173	5.27	1
11031	1234789-HpCDF	55673-89-7	0.0900 JBQ	0.0308	5.27	1
11031	OCDF	39001-02-0	1.62 JB	0.0334	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	56	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	85	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4514 SDG#: DX145-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SS-0.0-0.5

LLI Sample # SW 6426138
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:00

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 19:51

Chantilly VA 20151

X4514 SDG#: DX145-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 06:34	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0659 JQ	0.0452	1.03	1
11031	12378-PeCDD	40321-76-4	0.140 J	0.0444	5.14	1
11031	123478-HxCDD	39227-28-6	0.0844 J	0.0443	5.14	1
11031	123678-HxCDD	57653-85-7	0.267 JBQ	0.0450	5.14	1
11031	123789-HxCDD	19408-74-3	0.350 JQ	0.0690	5.14	1
11031	1234678-HpCDD	35822-46-9	3.04 JB	0.0459	5.14	1
11031	OCDD	3268-87-9	21.4 B	0.0413	10.3	1
11031	2378-TCDF	51207-31-9	0.498 JQ	0.0823	1.03	1
11031	12378-PeCDF	57117-41-6	0.590 JB	0.0447	5.14	1
11031	23478-PeCDF	57117-31-4	0.640 JB	0.0474	5.14	1
11031	123478-HxCDF	70648-26-9	0.417 JB	0.0431	5.14	1
11031	123678-HxCDF	57117-44-9	0.208 JB	0.0387	5.14	1
11031	123789-HxCDF	72918-21-9	0.114 JBQ	0.0507	5.14	1
11031	234678-HxCDF	60851-34-5	0.223 JB	0.0411	5.14	1
11031	1234678-HpCDF	67562-39-4	0.792 JB	0.0293	5.14	1
11031	1234789-HpCDF	55673-89-7	0.0855 JBQ	0.0515	5.14	1
11031	OCDF	39001-02-0	1.31 JB	0.0545	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	57	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SS-0.0-0.5

LLI Sample # SW 6426139
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:17

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4515 SDG#: DX145-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 07:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0382 JQ	0.0357	1.04	1
11031	12378-PeCDD	40321-76-4	0.139 JQ	0.0314	5.22	1
11031	123478-HxCDD	39227-28-6	0.123 J	0.0367	5.22	1
11031	123678-HxCDD	57653-85-7	0.345 JBQ	0.0394	5.22	1
11031	123789-HxCDD	19408-74-3	0.343 JQ	0.0609	5.22	1
11031	1234678-HpCDD	35822-46-9	4.94 JB	0.0352	5.22	1
11031	OCDD	3268-87-9	34.3 B	0.0350	10.4	1
11031	2378-TCDF	51207-31-9	0.699 J	0.0776	1.04	1
11031	12378-PeCDF	57117-41-6	0.326 JB	0.0412	5.22	1
11031	23478-PeCDF	57117-31-4	0.350 JBQ	0.0418	5.22	1
11031	123478-HxCDF	70648-26-9	0.488 JBQ	0.0389	5.22	1
11031	123678-HxCDF	57117-44-9	0.316 JBQ	0.0311	5.22	1
11031	123789-HxCDF	72918-21-9	0.113 JBQ	0.0393	5.22	1
11031	234678-HxCDF	60851-34-5	0.450 JB	0.0314	5.22	1
11031	1234678-HpCDF	67562-39-4	1.12 JB	0.0206	5.22	1
11031	1234789-HpCDF	55673-89-7	0.144 JBQ	0.0395	5.22	1
11031	OCDF	39001-02-0	2.14 JB	0.0375	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-017-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SS-0.0-0.5

LLI Sample # SW 6426140
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 13:47

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4516 SDG#: DX145-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 08:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0471 U	0.0471	1.02	1
11031	12378-PeCDD	40321-76-4	0.0931 J	0.0668	5.09	1
11031	123478-HxCDD	39227-28-6	0.102 J	0.0400	5.09	1
11031	123678-HxCDD	57653-85-7	0.274 JB	0.0423	5.09	1
11031	123789-HxCDD	19408-74-3	0.278 JQ	0.0619	5.09	1
11031	1234678-HpCDD	35822-46-9	4.00 JB	0.0330	5.09	1
11031	OCDD	3268-87-9	36.1 B	0.0308	10.2	1
11650	2378-TCDF-Conf	51207-31-9	9.38 C	0.112	1.02	1
11031	12378-PeCDF	57117-41-6	8.38 B	0.110	5.09	1
11031	23478-PeCDF	57117-31-4	5.72 B	0.122	5.09	1
11031	123478-HxCDF	70648-26-9	6.21 B	0.0760	5.09	1
11031	123678-HxCDF	57117-44-9	1.61 JB	0.0614	5.09	1
11031	123789-HxCDF	72918-21-9	0.718 JB	0.0889	5.09	1
11031	234678-HxCDF	60851-34-5	1.40 JBQ	0.0674	5.09	1
11031	1234678-HpCDF	67562-39-4	1.50 JB	0.0214	5.09	1
11031	1234789-HpCDF	55673-89-7	0.617 JBQ	0.0449	5.09	1
11031	OCDF	39001-02-0	2.24 JB	0.0482	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-2378-TCDF-Conf	61	24 - 169
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	48	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	89	17 - 157
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	56	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	54	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SS-0.0-0.5

LLI Sample # SW 6426141
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4517 SDG#: DX145-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 09:23	Joseph D Anderson	1
11650	Dioxins/Furans in Solids- Conf	EPA 1613B	1	11280002	10/17/2011 18:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	2.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0258 U	0.0258	1.02	1
11031	12378-PeCDD	40321-76-4	0.0518 JQ	0.0242	5.08	1
11031	123478-HxCDD	39227-28-6	0.0545 JQ	0.0270	5.08	1
11031	123678-HxCDD	57653-85-7	0.128 JBQ	0.0279	5.08	1
11031	123789-HxCDD	19408-74-3	0.0989 JQ	0.0249	5.08	1
11031	1234678-HpCDD	35822-46-9	1.64 JB	0.0254	5.08	1
11031	OCDD	3268-87-9	9.43 JB	0.0237	10.2	1
11031	2378-TCDF	51207-31-9	0.0445 U	0.0445	1.02	1
11031	12378-PeCDF	57117-41-6	0.0680 JBQ	0.0230	5.08	1
11031	23478-PeCDF	57117-31-4	0.361 JB	0.0244	5.08	1
11031	123478-HxCDF	70648-26-9	0.116 JBQ	0.0195	5.08	1
11031	123678-HxCDF	57117-44-9	0.0971 JBQ	0.0170	5.08	1
11031	123789-HxCDF	72918-21-9	0.0259 JBQ	0.0226	5.08	1
11031	234678-HxCDF	60851-34-5	0.139 JB	0.0186	5.08	1
11031	1234678-HpCDF	67562-39-4	0.545 JB	0.0156	5.08	1
11031	1234789-HpCDF	55673-89-7	0.0534 JBQ	0.0293	5.08	1
11031	OCDF	39001-02-0	1.03 JB	0.0321	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	96	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	61	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-019-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SS-0.0-0.5

LLI Sample # SW 6426142
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4518 SDG#: DX145-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 10:20	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401A	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0303 U	0.0303	1.06	1
11031	12378-PeCDD	40321-76-4	0.0673 J	0.0285	5.28	1
11031	123478-HxCDD	39227-28-6	0.0740 JQ	0.0350	5.28	1
11031	123678-HxCDD	57653-85-7	0.208 JB	0.0377	5.28	1
11031	123789-HxCDD	19408-74-3	0.141 J	0.0326	5.28	1
11031	1234678-HpCDD	35822-46-9	3.16 JB	0.0340	5.28	1
11031	OCDD	3268-87-9	18.9 B	0.0209	10.6	1
11031	2378-TCDF	51207-31-9	0.344 J	0.0484	1.06	1
11031	12378-PeCDF	57117-41-6	0.0976 JBQ	0.0265	5.28	1
11031	23478-PeCDF	57117-31-4	0.239 JBQ	0.0275	5.28	1
11031	123478-HxCDF	70648-26-9	0.256 JB	0.0309	5.28	1
11031	123678-HxCDF	57117-44-9	0.169 JB	0.0255	5.28	1
11031	123789-HxCDF	72918-21-9	0.0602 JBQ	0.0341	5.28	1
11031	234678-HxCDF	60851-34-5	0.290 JB	0.0275	5.28	1
11031	1234678-HpCDF	67562-39-4	0.796 JB	0.0157	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0460 JBQ	0.0270	5.28	1
11031	OCDF	39001-02-0	1.32 JBQ	0.0407	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	87	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SS-0.0-0.5

LLI Sample # SW 6426143
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4519 SDG#: DX145-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 11:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0343 JQ	0.0320	1.06	1
11031	12378-PeCDD	40321-76-4	0.0549 JQ	0.0301	5.28	1
11031	123478-HxCDD	39227-28-6	0.0810 J	0.0399	5.28	1
11031	123678-HxCDD	57653-85-7	0.255 JB	0.0422	5.28	1
11031	123789-HxCDD	19408-74-3	0.257 JQ	0.0511	5.28	1
11031	1234678-HpCDD	35822-46-9	4.66 JB	0.0374	5.28	1
11031	OCDD	3268-87-9	37.9 B	0.0315	10.6	1
11031	2378-TCDF	51207-31-9	0.219 J	0.0519	1.06	1
11031	12378-PeCDF	57117-41-6	0.0758 JBQ	0.0266	5.28	1
11031	23478-PeCDF	57117-31-4	0.0837 JB	0.0263	5.28	1
11031	123478-HxCDF	70648-26-9	0.205 JBQ	0.0263	5.28	1
11031	123678-HxCDF	57117-44-9	0.109 JBQ	0.0227	5.28	1
11031	123789-HxCDF	72918-21-9	0.0309 JB	0.0260	5.28	1
11031	234678-HxCDF	60851-34-5	0.146 JBQ	0.0218	5.28	1
11031	1234678-HpCDF	67562-39-4	1.17 JB	0.0184	5.28	1
11031	1234789-HpCDF	55673-89-7	0.115 JBQ	0.0273	5.28	1
11031	OCDF	39001-02-0	2.83 JB	0.0368	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	60	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-021-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SS-0.0-0.5

LLI Sample # SW 6426144
LLI Group # 1269322
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 11:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 19:51

X4520 SDG#: DX145-20*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11280002	10/13/2011 12:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11280002	10/09/2011 12:30	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11285162401A Moisture Content by 160.3	Sample number(s): 6426134-6426142				102		80-120		
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426143-6426144				102		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11280002	Sample number(s): 6426134-6426144								
2378-TCDD	0.0413 U	0.0413	1.00	ng/kg	102		67-158		
12378-PeCDD	0.0372 U	0.0372	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0238 U	0.0238	5.00	ng/kg	104		70-164		
123678-HxCDD	0.0498 J	0.0235	5.00	ng/kg	101		76-134		
123789-HxCDD	0.0242 U	0.0242	5.00	ng/kg	99		64-162		
1234678-HpCDD	0.308 J	0.0298	5.00	ng/kg	98		70-140		
OCDD	0.625 J	0.0211	10.0	ng/kg	98		78-144		
2378-TCDF	0.0379 U	0.0379	1.00	ng/kg	104		75-158		
2378-TCDF-Conf	0.0480 U	0.0480	1.00	ng/kg	104		75-158		
12378-PeCDF	0.0197 J	0.0189	5.00	ng/kg	100		80-134		
23478-PeCDF	0.0656 J	0.0189	5.00	ng/kg	99		68-160		
123478-HxCDF	0.0739 J	0.0214	5.00	ng/kg	99		72-134		
123678-HxCDF	0.0577 J	0.0185	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0378 J	0.0238	5.00	ng/kg	97		78-130		
234678-HxCDF	0.0899 J	0.0202	5.00	ng/kg	99		70-156		
1234678-HpCDF	0.210 J	0.0107	5.00	ng/kg	96		82-122		
1234789-HpCDF	0.0464 J	0.0203	5.00	ng/kg	99		78-138		
OCDF	0.226 J	0.0378	10.0	ng/kg	98		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11285162401A Moisture Content by 160.3	Sample number(s): 6426134-6426142					BKG: P426118 2.2	2.2	0 (1)	20
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426143-6426144					BKG: P426127 6.6	5.9	11	20

*- Outside of specification

**This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11280002	Sample number(s): 6426134-6426144 UNSPK: P421344								
2378-TCDD	99	102	67-158	3	25				
12378-PeCDD	101	101	70-142	0	25				
123478-HxCDD	101	100	70-164	1	25				
123678-HxCDD	96	96	76-134	0	25				
123789-HxCDD	98	99	64-162	1	25				
1234678-HpCDD	119	106	70-140	11	25				
OCDD	225*	142	78-144	35*	25				
2378-TCDF	96	95	75-158	0	25				
2378-TCDF-Conf	96	95	75-158	0	25				
12378-PeCDF	99	98	80-134	0	25				
23478-PeCDF	96	97	68-160	1	25				
123478-HxCDF	98	97	72-134	0	25				
123678-HxCDF	98	96	84-130	2	25				
123789-HxCDF	98	94	78-130	4	25				
234678-HxCDF	98	98	70-156	0	25				
1234678-HpCDF	98	96	82-122	2	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	101	97	63-170	4	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11280002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6426134	76	69	60	68	69	69
6426135	74	64	63	70	63	63
6426136	78	66	57	69	65	64
6426137	74	65	61	67	63	64
6426138	76	67	64	72	65	65
6426139	78	67	66	75	69	67
6426140	78	69	54	67	67	63
6426141	72	62	59	70	60	56
6426142	75	65	62	72	66	64
6426143	74	64	59	70	63	60
6426144	74	66	57	65	65	65
Blank	77	71	67	78	73	75
MS	74	65	64	72	67	64
MSD	75	68	69	78	71	69
OPR	67	62	58	71	64	61
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6426134	86	69	71	74	84	89

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 07:51 PM

Group Number: 1269322

Surrogate Quality Control

6426135	84	61	61	71	76	76
6426136	88	60	62	75	80	82
6426137	78	63	64	70	74	74
6426138	88	64	63	74	78	77
6426139	87	64	59	71	80	81
6426140	92	60	58	76	83	80
6426141	95	54	53	70	78	75
6426142	96	61	61	73	80	80
6426143	88	59	59	72	78	74
6426144	79	64	62	71	77	74
Blank	113	76	77	81	86	91
MS	91	64	69	71	83	88
MSD	97	72	76	74	80	86
OPR	103	63	66	72	84	88
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-2378-TCDF-Conf
6426134	84	88	93	73	76	
6426135	48	85	85	71	72	
6426136	81	85	89	70	75	
6426137	79	84	82	69	70	
6426138	56	87	85	74	76	
6426139	57	87	82	75	74	
6426140	48	92	92	74	79	
6426141	48	86	89		75	61
6426142	86	88	90	71	75	
6426143	82	86	87	70	74	
6426144	60	85	83	72	74	
Blank	89	104	115	70	79	66
MS	82	85	93	70	73	70
MSD	82	91	101	73	76	73
OPR	88	94	106	60	70	60
Limits:	28-130	23-140	17-157	24-169	24-185	24-169

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct# 13013 Cp# 1269332 sample# 6426134-44

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels † Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 601/60208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6550 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
Samplers Signature: <i>Sam Jones</i>																		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-SS Sleeve			X	X									
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-SS Sleeve			X	X									
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-SS Sleeve			X	X									

Relinquished by: (Signature) *[Signature]*

Received by: (Signature) *[Signature]*

Date/Time: 09/30/2011 / 1630

Date/Time: 10/1/2011 / 0945

Received for Laboratory by: (Signature)

Airbill No.(s)
8767 9857 4445; 8767 9857 4456

Laboratory:
Lancaster Laboratories, Inc.

The surface code SS was added to the samples listed above. NLM 10/4/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

October 21, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/01/2011

Group Number: 1269323

SDG: DX146

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-022-SA8S-SS-0.0-0.5 Soil
SL-023-SA8S-SS-0.0-0.5 Soil
SL-084-SA7-SB-0.0-1.0 Soil
SL-113-SA7-SB-0.0-1.0 Soil
SL-115-SA7-SB-0.5-1.5 Soil
SL-132-SA7-SB-4.0-5.0 Soil
SL-132-SA7-SB-8.5-9.5 Soil
SL-180-SA7-SB-2.0-3.0 SoilLancaster Labs (LLI) #6426145
6426146
6426147
6426148
6426149
6426150
6426151
6426152

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0264 U	0.0264	1.05	1
11031	12378-PeCDD	40321-76-4	0.112 JB	0.0309	5.26	1
11031	123478-HxCDD	39227-28-6	0.0991 J	0.0297	5.26	1
11031	123678-HxCDD	57653-85-7	0.182 JQ	0.0327	5.26	1
11031	123789-HxCDD	19408-74-3	0.153 J	0.0283	5.26	1
11031	1234678-HpCDD	35822-46-9	3.60 JB	0.0328	5.26	1
11031	OCDD	3268-87-9	25.7 B	0.0310	10.5	1
11031	2378-TCDF	51207-31-9	0.128 JQ	0.0559	1.05	1
11031	12378-PeCDF	57117-41-6	0.0992 JBQ	0.0286	5.26	1
11031	23478-PeCDF	57117-31-4	0.165 JB	0.0276	5.26	1
11031	123478-HxCDF	70648-26-9	0.126 JBQ	0.0243	5.26	1
11031	123678-HxCDF	57117-44-9	0.102 JB	0.0223	5.26	1
11031	123789-HxCDF	72918-21-9	0.0240 U	0.0240	5.26	1
11031	234678-HxCDF	60851-34-5	0.130 JBQ	0.0220	5.26	1
11031	1234678-HpCDF	67562-39-4	0.777 JB	0.0181	5.26	1
11031	1234789-HpCDF	55673-89-7	0.0858 JB	0.0243	5.26	1
11031	OCDF	39001-02-0	1.23 JB	0.0256	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4605 SDG#: DX146-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SS-0.0-0.5

LLI Sample # SW 6426145
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4605 SDG#: DX146-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 08:28	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0466 JQ	0.0403	1.05	1
11031	12378-PeCDD	40321-76-4	0.0967 JB	0.0377	5.25	1
11031	123478-HxCDD	39227-28-6	0.128 JQ	0.0384	5.25	1
11031	123678-HxCDD	57653-85-7	0.310 J	0.0411	5.25	1
11031	123789-HxCDD	19408-74-3	0.333 JQ	0.0666	5.25	1
11031	1234678-HpCDD	35822-46-9	5.75 B	0.0488	5.25	1
11031	OCDD	3268-87-9	40.2 B	0.0346	10.5	1
11031	2378-TCDF	51207-31-9	0.474 J	0.0693	1.05	1
11031	12378-PeCDF	57117-41-6	0.116 JBQ	0.0368	5.25	1
11031	23478-PeCDF	57117-31-4	0.0340 U	0.0340	5.25	1
11031	123478-HxCDF	70648-26-9	0.186 JBQ	0.0295	5.25	1
11031	123678-HxCDF	57117-44-9	0.175 JB	0.0278	5.25	1
11031	123789-HxCDF	72918-21-9	0.0383 JBQ	0.0314	5.25	1
11031	234678-HxCDF	60851-34-5	0.183 JBQ	0.0287	5.25	1
11031	1234678-HpCDF	67562-39-4	1.01 JB	0.0312	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0811 JBQ	0.0387	5.25	1
11031	OCDF	39001-02-0	1.63 JB	0.0310	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	47	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	89	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	77	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-023-SA8S-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SS-0.0-0.5

LLI Sample # SW 6426146
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4606 SDG#: DX146-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 09:24	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Moisture Content by 160.3	n.a.	3.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0390 J	0.0340	1.02	1
11031	12378-PeCDD	40321-76-4	0.0447 JB	0.0271	5.09	1
11031	123478-HxCDD	39227-28-6	0.0473 J	0.0235	5.09	1
11031	123678-HxCDD	57653-85-7	0.0561 JQ	0.0265	5.09	1
11031	123789-HxCDD	19408-74-3	0.0453 JQ	0.0407	5.09	1
11031	1234678-HpCDD	35822-46-9	0.374 JB	0.0230	5.09	1
11031	OCDD	3268-87-9	2.44 JB	0.0205	10.2	1
11031	2378-TCDF	51207-31-9	0.0243 U	0.0243	1.02	1
11031	12378-PeCDF	57117-41-6	0.0527 JB	0.0135	5.09	1
11031	23478-PeCDF	57117-31-4	0.106 JBQ	0.0138	5.09	1
11031	123478-HxCDF	70648-26-9	0.0709 JBQ	0.0205	5.09	1
11031	123678-HxCDF	57117-44-9	0.0683 JBQ	0.0168	5.09	1
11031	123789-HxCDF	72918-21-9	0.0466 JBQ	0.0243	5.09	1
11031	234678-HxCDF	60851-34-5	0.0603 JBQ	0.0127	5.09	1
11031	1234678-HpCDF	67562-39-4	0.144 JBQ	0.0189	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0268 JBQ	0.0251	5.09	1
11031	OCDF	39001-02-0	0.212 JB	0.0345	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	47	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	44	26 - 152
13C12-123678-HxCDF	52	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	44	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4607 SDG#: DX146-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-084-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-084-SA7-SB-0.0-1.0

LLI Sample # SW 6426147
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4607 SDG#: DX146-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 10:21	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	11.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0643 JQ	0.0266	1.11	1
11031	12378-PeCDD	40321-76-4	0.155 JB	0.0249	5.53	1
11031	123478-HxCDD	39227-28-6	0.0587 J	0.0240	5.53	1
11031	123678-HxCDD	57653-85-7	0.487 J	0.0241	5.53	1
11031	123789-HxCDD	19408-74-3	0.643 J	0.0234	5.53	1
11031	1234678-HpCDD	35822-46-9	0.662 JB	0.0255	5.53	1
11031	OCDD	3268-87-9	4.39 JB	0.0200	11.1	1
11031	2378-TCDF	51207-31-9	0.0416 JQ	0.0197	1.11	1
11031	12378-PeCDF	57117-41-6	0.156 JB	0.0135	5.53	1
11031	23478-PeCDF	57117-31-4	0.167 JB	0.0142	5.53	1
11031	123478-HxCDF	70648-26-9	0.149 JBQ	0.0185	5.53	1
11031	123678-HxCDF	57117-44-9	0.161 JB	0.0157	5.53	1
11031	123789-HxCDF	72918-21-9	0.0741 JB	0.0218	5.53	1
11031	234678-HxCDF	60851-34-5	0.0789 JBQ	0.0167	5.53	1
11031	1234678-HpCDF	67562-39-4	0.195 JBQ	0.0114	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0386 JBQ	0.0204	5.53	1
11031	OCDF	39001-02-0	0.329 JB	0.0331	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	86	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	66	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4608 SDG#: DX146-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-113-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-113-SA7-SB-0.0-1.0

LLI Sample # SW 6426148
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 14:06

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4608 SDG#: DX146-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 11:18	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0285 U	0.0285	1.04	1
11031	12378-PeCDD	40321-76-4	0.0468 JBQ	0.0307	5.20	1
11031	123478-HxCDD	39227-28-6	0.0265 U	0.0265	5.20	1
11031	123678-HxCDD	57653-85-7	0.313 J	0.0270	5.20	1
11031	123789-HxCDD	19408-74-3	0.434 J	0.0283	5.20	1
11031	1234678-HpCDD	35822-46-9	0.395 JB	0.0262	5.20	1
11031	OCDD	3268-87-9	3.13 JB	0.0248	10.4	1
11031	2378-TCDF	51207-31-9	0.0243 J	0.0220	1.04	1
11031	12378-PeCDF	57117-41-6	0.0864 JB	0.0135	5.20	1
11031	23478-PeCDF	57117-31-4	0.110 JBQ	0.0140	5.20	1
11031	123478-HxCDF	70648-26-9	0.0320 JBQ	0.0263	5.20	1
11031	123678-HxCDF	57117-44-9	0.199 JBQ	0.0192	5.20	1
11031	123789-HxCDF	72918-21-9	0.0431 JBQ	0.0208	5.20	1
11031	234678-HxCDF	60851-34-5	0.0565 JB	0.0157	5.20	1
11031	1234678-HpCDF	67562-39-4	0.130 JB	0.0101	5.20	1
11031	1234789-HpCDF	55673-89-7	0.0163 U	0.0163	5.20	1
11031	OCDF	39001-02-0	0.221 JB	0.0380	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	60	21 - 178
13C12-123478-HxCDF	39	26 - 152
13C12-123678-HxCDF	53	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	58	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-115-SA7-SB-0.5-1.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-115-SA7-SB-0.5-1.5

LLI Sample # SW 6426149
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 12:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4609 SDG#: DX146-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 12:14	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0241 U	0.0241	1.02	1
11031	12378-PeCDD	40321-76-4	0.0449 JBQ	0.0226	5.09	1
11031	123478-HxCDD	39227-28-6	0.0415 JQ	0.0316	5.09	1
11031	123678-HxCDD	57653-85-7	0.239 J	0.0317	5.09	1
11031	123789-HxCDD	19408-74-3	0.187 JQ	0.0310	5.09	1
11031	1234678-HpCDD	35822-46-9	10.2 B	0.0505	5.09	1
11031	OCDD	3268-87-9	122 B	0.0526	10.2	1
11031	2378-TCDF	51207-31-9	0.0215 U	0.0215	1.02	1
11031	12378-PeCDF	57117-41-6	0.0365 JBQ	0.0140	5.09	1
11031	23478-PeCDF	57117-31-4	0.115 JBQ	0.0130	5.09	1
11031	123478-HxCDF	70648-26-9	0.0727 JBQ	0.0195	5.09	1
11031	123678-HxCDF	57117-44-9	0.0644 JBQ	0.0182	5.09	1
11031	123789-HxCDF	72918-21-9	0.0498 JBQ	0.0208	5.09	1
11031	234678-HxCDF	60851-34-5	0.0652 JBQ	0.0175	5.09	1
11031	1234678-HpCDF	67562-39-4	0.709 JB	0.0181	5.09	1
11031	1234789-HpCDF	55673-89-7	0.0713 JB	0.0251	5.09	1
11031	OCDF	39001-02-0	1.77 JB	0.0299	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	76	26 - 138
13C12-OCDF	81	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4610 SDG#: DX146-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-132-SA7-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-4.0-5.0

LLI Sample # SW 6426150
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:23

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/01/2011 09:45

Suite 210

Reported: 10/21/2011 20:32

Chantilly VA 20151

X4610 SDG#: DX146-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 13:11	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0427 U	0.0427	1.06	1
11031	12378-PeCDD	40321-76-4	0.0489 JBQ	0.0300	5.28	1
11031	123478-HxCDD	39227-28-6	0.0342 U	0.0342	5.28	1
11031	123678-HxCDD	57653-85-7	0.446 J	0.0332	5.28	1
11031	123789-HxCDD	19408-74-3	0.762 J	0.0307	5.28	1
11031	1234678-HpCDD	35822-46-9	2.70 JB	0.0493	5.28	1
11031	OCDD	3268-87-9	20.9 B	0.0287	10.6	1
11031	2378-TCDF	51207-31-9	0.0334 U	0.0334	1.06	1
11031	12378-PeCDF	57117-41-6	0.0636 JBQ	0.0168	5.28	1
11031	23478-PeCDF	57117-31-4	0.0637 JB	0.0180	5.28	1
11031	123478-HxCDF	70648-26-9	0.0579 JBQ	0.0257	5.28	1
11031	123678-HxCDF	57117-44-9	0.182 JB	0.0209	5.28	1
11031	123789-HxCDF	72918-21-9	0.110 JBQ	0.0243	5.28	1
11031	234678-HxCDF	60851-34-5	0.0422 JB	0.0198	5.28	1
11031	1234678-HpCDF	67562-39-4	0.364 JB	0.0153	5.28	1
11031	1234789-HpCDF	55673-89-7	0.102 JBQ	0.0267	5.28	1
11031	OCDF	39001-02-0	0.667 JB	0.0484	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	56	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	65	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-132-SA7-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-132-SA7-SB-8.5-9.5

LLI Sample # SW 6426151
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 08:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4611 SDG#: DX146-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 17:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0376 JQ	0.0366	1.02	1
11031	12378-PeCDD	40321-76-4	0.0258 U	0.0258	5.12	1
11031	123478-HxCDD	39227-28-6	0.0217 U	0.0217	5.12	1
11031	123678-HxCDD	57653-85-7	0.0787 JQ	0.0220	5.12	1
11031	123789-HxCDD	19408-74-3	0.127 JQ	0.0220	5.12	1
11031	1234678-HpCDD	35822-46-9	0.591 JBQ	0.0301	5.12	1
11031	OCDD	3268-87-9	2.78 JB	0.0195	10.2	1
11031	2378-TCDF	51207-31-9	0.0294 U	0.0294	1.02	1
11031	12378-PeCDF	57117-41-6	0.0278 JB	0.0159	5.12	1
11031	23478-PeCDF	57117-31-4	0.0980 JBQ	0.0169	5.12	1
11031	123478-HxCDF	70648-26-9	0.0426 JBQ	0.0168	5.12	1
11031	123678-HxCDF	57117-44-9	0.0179 JBQ	0.0140	5.12	1
11031	123789-HxCDF	72918-21-9	0.0730 JBQ	0.0155	5.12	1
11031	234678-HxCDF	60851-34-5	0.0712 JBQ	0.0134	5.12	1
11031	1234678-HpCDF	67562-39-4	0.191 JB	0.0102	5.12	1
11031	1234789-HpCDF	55673-89-7	0.0489 JBQ	0.0182	5.12	1
11031	OCDF	39001-02-0	0.252 JBQ	0.0377	10.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-180-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-180-SA7-SB-2.0-3.0

LLI Sample # SW 6426152
LLI Group # 1269323
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 09/30/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/01/2011 09:45

Reported: 10/21/2011 20:32

X4612 SDG#: DX146-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11283001	10/14/2011 18:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11283001	10/10/2011 14:45	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11285162401B	10/12/2011 20:02	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426145-6426152				102		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11283001	Sample number(s): 6426145-6426152								
2378-TCDD	0.0290 U	0.0290	1.00	ng/kg	98		67-158		
12378-PeCDD	0.0326 J	0.0224	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0170 U	0.0170	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0176 U	0.0176	5.00	ng/kg	98		76-134		
123789-HxCDD	0.0169 U	0.0169	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.268 J	0.0221	5.00	ng/kg	96		70-140		
OCDD	0.392 J	0.0160	10.0	ng/kg	95		78-144		
2378-TCDF	0.0216 U	0.0216	1.00	ng/kg	98		75-158		
12378-PeCDF	0.0149 J	0.0125	5.00	ng/kg	97		80-134		
23478-PeCDF	0.0319 J	0.0127	5.00	ng/kg	93		68-160		
123478-HxCDF	0.0314 J	0.0139	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0471 J	0.0114	5.00	ng/kg	95		84-130		
123789-HxCDF	0.0484 J	0.0132	5.00	ng/kg	96		78-130		
234678-HxCDF	0.0274 J	0.0107	5.00	ng/kg	96		70-156		
1234678-HpCDF	0.129 J	0.00980	5.00	ng/kg	93		82-122		
1234789-HpCDF	0.0187 J	0.0142	5.00	ng/kg	96		78-138		
OCDF	0.121 J	0.0323	10.0	ng/kg	96		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11285162401B Moisture Content by 160.3	Sample number(s): 6426145-6426152					BKG: P426127 6.6	5.9	11	20
Batch number: 11283001	Sample number(s): 6426145-6426152					UNSPK: P422605			
2378-TCDD	96	101	67-158	4	25				
12378-PeCDD	99	99	70-142	1	25				
123478-HxCDD	97	100	70-164	2	25				
123678-HxCDD	94	98	76-134	4	25				
123789-HxCDD	96	97	64-162	0	25				
1234678-HpCDD	95	99	70-140	4	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	95	169*	78-144	54*	25				
2378-TCDF	94	96	75-158	2	25				
12378-PeCDF	95	95	80-134	0	25				
23478-PeCDF	94	94	68-160	1	25				
123478-HxCDF	93	95	72-134	2	25				
123678-HxCDF	93	92	84-130	1	25				
123789-HxCDF	94	95	78-130	0	25				
234678-HxCDF	94	94	70-156	1	25				
1234678-HpCDF	91	91	82-122	0	25				
1234789-HpCDF	96	96	78-138	1	25				
OCDF	94	94	63-170	0	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11283001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6426145	73	65	62	67	69	74
6426146	76	71	69	72	71	76
6426147	70	64	44	52	67	44
6426148	79	67	64	76	70	65
6426149	70	60	39	53	64	58
6426150	77	72	69	75	77	76
6426151	72	65	56	67	67	65
6426152	74	67	55	68	68	68
Blank	80	72	62	74	76	74
MS	75	68	16*	15*	70	73
MSD	78	70	41	44	74	75
OPR	69	65	22	24	67	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6426145	79	71	74	68	81	78
6426146	77	77	78	73	78	77
6426147	71	65	66	69	82	75
6426148	95	65	66	76	86	86
6426149	76	59	60	70	82	84
6426150	88	76	81	76	85	87
6426151	89	63	65	72	78	81
6426152	92	64	68	77	83	87
Blank	92	74	78	82	92	92
MS	27	67	69	73	78	75
MSD	65	69	72	77	91	85
OPR	43	69	70	74	81	80

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 10/21/11 at 08:32 PM

Group Number: 1269323

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6426145	86	83	86	69	68	
6426146	47	86	89	77	71	
6426147	47	87	90	68	69	
6426148	85	89	93	71	76	
6426149	80	86	88	64	70	
6426150	85	92	98	76	76	
6426151	80	86	90	67	76	
6426152	82	90	97	69	78	
Blank	92	100	105	73	80	
MS	81	85	87	71	75	
MSD	96	91	94	74	79	
OPR	83	93	96	62	71	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1269323 sample#6426145-52

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY FOR ALL LOCATIONS										SS ONLY		Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 8010/6020/8271/1A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers													
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-008-SA8S-0.0-0.5	9/30/11	0920	SOIL	NONE	1-SS Sleeve			X	X									
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-009-SA8S-0.0-0.5	9/30/11	1023	SOIL	NONE	1-SS Sleeve			X	X									
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-010-SA8S-0.0-0.5	9/30/11	0945	SOIL	NONE	1-SS Sleeve			X	X									
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-011-SA8S-0.0-0.5	9/30/11	0815	SOIL	NONE	1-SS Sleeve			X	X									
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-012-SA8S-0.0-0.5	9/30/11	0800	SOIL	NONE	1-SS Sleeve			X	X									
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-016-SA8S-0.0-0.5	9/30/11	1417	SOIL	NONE	1-SS Sleeve			X	X									
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-017-SA8S-0.0-0.5	9/30/11	1347	SOIL	NONE	1-SS Sleeve			X	X									
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-018-SA8S-0.0-0.5	9/30/11	1400	SOIL	NONE	1-SS Sleeve			X	X									
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-019-SA8S-0.0-0.5	9/30/11	1040	SOIL	NONE	1-SS Sleeve			X	X									
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-020-SA8S-0.0-0.5	9/30/11	1113	SOIL	NONE	1-SS Sleeve			X	X									
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-021-SA8S-0.0-0.5	9/30/11	1130	SOIL	NONE	1-SS Sleeve			X	X									
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-022-SA8S-0.0-0.5	9/30/11	0905	SOIL	NONE	1-SS Sleeve			X	X									
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		X	X		
SL-023-SA8S-0.0-0.5	9/30/11	0845	SOIL	NONE	1-SS Sleeve			X	X									
Relinquished by: (Signature) 		Date/Time 09/30/2011 / 1630		Received for Laboratory by: (Signature)				Laboratory: Lancaster Laboratories, Inc.										
Received by: (Signature) 		Date/Time 10/10/11 / 0945		Airbill No.(s) 8767 9857 4445; 8767 9857 4456														

The surface code SS was added to the samples above per P.B. NLM 10/4/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/21/2011

Group Number: 1272534

SDG: DE273

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-023-SA7-SB-2.0-3.0 Soil
SL-060-SA7-SB-2.5-3.5 Soil
SL-069-SA7-SB-2.5-3.5 Soil
SL-148-SA7-SB-0.0-1.0 Soil
SL-026-SA5DS-SB-4.0-5.0 Soil
SL-026-SA5DS-SB-9.0-10.0 Soil
SL-040-SA5DS-SB-4.0-5.0 Soil
SL-040-SA5DS-SB-9.0-10.0 Soil
SL-016-SA8S-SB-4.0-5.0 Soil
TB-102011 WaterLancaster Labs (LLI) #6445463
6445464
6445465
6445466
6445467
6445468
6445469
6445470
6445471
6445473

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

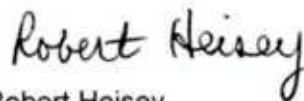
COPY TO

1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	510	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	510	1
04688	Benzyl alcohol	100-51-6	170	U 170	510	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	510	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	510	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	510	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	510	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 J	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.9	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.62 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.1 U	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.3 J	0.2	1.1	25.46
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34	U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40	U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34	U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34	U	0.34	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	100	U	100	520	1
10501	Isopropanol	67-63-0	100	U	100	520	1
10501	Methanol	67-56-1	100	U	100	520	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2	U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2	U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2	U	5.2	10	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.6	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.66	J	0.41	1.2	1
10199	EFH (C15-C20)	n.a.	2.8		0.41	1.2	1
10199	EFH (C21-C30)	n.a.	13		0.41	1.2	1
10199	EFH (C30 - C40)	n.a.	22		0.41	1.2	1
10199	EFH (C8-C11)	n.a.	0.41	U	0.41	1.2	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,100		5.97	19.7	1
07914	Boron	7440-42-8	6.14		0.355	4.93	1
01650	Calcium	7440-70-2	2,530		2.47	19.7	1
01654	Iron	7439-89-6	19,000		2.58	19.7	1
01656	Lithium	7439-93-2	27.2		0.61	2.0	1
01657	Magnesium	7439-95-4	4,510		0.434	9.87	1
06958	Manganese	7439-96-5	303		0.0355	0.493	1
10145	Phosphorus	7723-14-0	400		0.345	9.87	1
01662	Potassium	7440-09-7	3,000		11.2	49.3	1
01667	Sodium	7440-23-5	73.6	J	5.87	98.7	1
07968	Strontium	7440-24-6	14.0		0.0247	0.493	1
06969	Tin	7440-31-5	2.51	J	0.316	9.87	1
06970	Titanium	7440-32-6	1,060		0.0701	0.987	1
10146	Zirconium	7440-67-7	3.26	J	0.454	4.93	1
		SW-846 6020	mg/kg		mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0767 U	0.0767	0.207	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	3.51	0.0829	0.415	2
06126	Barium	7440-39-3	81.9	0.110	0.415	2
06127	Beryllium	7440-41-7	0.467	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.149	0.0456	0.104	2
06131	Chromium	7440-47-3	14.7	0.124	0.415	2
06132	Cobalt	7440-48-4	5.10	0.0207	0.104	2
06133	Copper	7440-50-8	6.73	0.0829	0.415	2
06135	Lead	7439-92-1	4.68	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.457	0.0518	0.104	2
06139	Nickel	7440-02-0	9.30	0.104	0.415	2
06141	Selenium	7782-49-2	0.137 J	0.0601	0.415	2
06142	Silver	7440-22-4	0.0253 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.243	0.0311	0.104	2
06148	Vanadium	7440-62-2	29.5	0.0228	0.104	2
06149	Zinc	7440-66-6	55.9	0.580	3.11	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.82	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	2.4	0.82	1.5	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.3 U	9.3	31.1	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.58	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	3.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL023 SDG#: DE273-01

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-023-SA7-SB-2.5.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 22:57	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:01	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/27/2011 16:24	Laura M Krieger	25.46
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:05	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:06	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:12	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:33	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 16:34	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 01:13	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:25	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA7-SB-2.0-3.0

LLI Sample # SW 6445463
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:18

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL023 SDG#: DE273-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:13	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 18:45	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 18:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 16:07	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:45	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.0	24.51
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg		ug/kg	ug/kg	
10225	PCB-1254	11097-69-1	0.34	U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41	U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34	U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34	U	0.34	1.8	1
GC Miscellaneous		SW-846 8015B	ug/kg		ug/kg	ug/kg	
10501	Ethanol	64-17-5	100	U	100	520	1
10501	Isopropanol	67-63-0	100	U	100	520	1
10501	Methanol	67-56-1	100	U	100	520	1
GC Miscellaneous		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.2	U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2	U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2	U	5.2	10	1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.7	1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	0.42	U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.83	J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	4.3		0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	8.2		0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42	U	0.42	1.3	1
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,400		6.21	20.5	1
07914	Boron	7440-42-8	5.18		0.370	5.13	1
01650	Calcium	7440-70-2	2,240		2.57	20.5	1
01654	Iron	7439-89-6	17,200		2.68	20.5	1
01656	Lithium	7439-93-2	17.2		0.64	2.1	1
01657	Magnesium	7439-95-4	3,820		0.452	10.3	1
06958	Manganese	7439-96-5	168		0.0370	0.513	1
10145	Phosphorus	7723-14-0	98.7		0.359	10.3	1
01662	Potassium	7440-09-7	945		11.6	51.3	1
01667	Sodium	7440-23-5	156		6.11	103	1
07968	Strontium	7440-24-6	15.5		0.0257	0.513	1
06969	Tin	7440-31-5	2.62	J	0.329	10.3	1
06970	Titanium	7440-32-6	968		0.0729	1.03	1
10146	Zirconium	7440-67-7	2.54	J	0.472	5.13	1
		SW-846 6020	mg/kg		mg/kg	mg/kg	

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL060 SDG#: DE273-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0752 U	0.0752	0.203	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	2.76	0.0813	0.407	2
06126	Barium	7440-39-3	36.1	0.108	0.407	2
06127	Beryllium	7440-41-7	0.398	0.0163	0.102	2
06128	Cadmium	7440-43-9	0.0447 U	0.0447	0.102	2
06131	Chromium	7440-47-3	13.9	0.122	0.407	2
06132	Cobalt	7440-48-4	3.37	0.0203	0.102	2
06133	Copper	7440-50-8	4.05	0.0813	0.407	2
06135	Lead	7439-92-1	2.85	0.0104	0.203	2
06138	Molybdenum	7439-98-7	0.226	0.0508	0.102	2
06139	Nickel	7440-02-0	10.8	0.102	0.407	2
06141	Selenium	7782-49-2	0.0657 J	0.0590	0.407	2
06142	Silver	7440-22-4	0.0206 J	0.0144	0.102	2
06145	Thallium	7440-28-0	0.144	0.0305	0.102	2
06148	Vanadium	7440-62-2	25.5	0.0224	0.102	2
06149	Zinc	7440-66-6	27.1	0.569	3.05	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.102	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.2	0.83	1.0	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.4 J	0.83	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.18 U	0.18	0.51	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.68	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/21/2011 09:15

Suite 210

Reported: 11/18/2011 12:00

Chantilly VA 20151

SL060 SDG#: DE273-02

General Sample Comments

State of California Lab Certification No. 2501

The volatile analysis was performed on soil from SL-060-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:22	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 15:33	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 22:29	Laura M Krieger	24.51
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:07	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 05:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:29	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:46	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:48	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:02	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:37	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-060-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA7-SB-2.5-3.5

LLI Sample # SW 6445464
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:05

CDM Federal Programs Corp.

Submitted: 10/21/2011 09:15

14420 Albemarle Point Place

Reported: 11/18/2011 12:00

Suite 210

Chantilly VA 20151

SL060 SDG#: DE273-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:28	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 10:35	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:46	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C						
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS Semivolatiles SW-846 8270C SIM						
10138	Acenaphthene	83-32-9	0.68 U	0.68	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.68 U	0.68	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.68 U	0.68	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.68 U	0.68	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.68 U	0.68	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.79 J	0.68	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.1 U	6.1	18	1
10138	Di-n-butylphthalate	84-74-2	6.1 U	6.1	18	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.68 U	0.68	1.7	1
10138	Diethylphthalate	84-66-2	6.1 U	6.1	18	1
10138	Dimethylphthalate	131-11-3	6.1 U	6.1	18	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2 J	6.1	18	1
10138	Fluoranthene	206-44-0	0.68 U	0.68	1.7	1
10138	Fluorene	86-73-7	0.68 U	0.68	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.68 U	0.68	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.68 U	0.68	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.68 U	0.68	1.7	1
10138	Naphthalene	91-20-3	0.68 U	0.68	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.68 U	0.68	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.1 U	6.1	18	1
10138	Phenanthrene	85-01-8	0.68 U	0.68	1.7	1
10138	Pyrene	129-00-0	0.68 U	0.68	1.7	1
GC Volatiles TPH GRO SW-846 8015B mod						
05551	9a TPH by EPA 8015B Gas C5-C12	n.a.	0.2 U	0.2	1.1	26.65
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs SW-846 8082 ug/kg ug/kg ug/kg						
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
GC Miscellaneous SW-846 8015B ug/kg ug/kg ug/kg						
10501	Ethanol	64-17-5	100 U	100	520	1
10501	Isopropanol	67-63-0	100 U	100	520	1
10501	Methanol	67-56-1	100 U	100	520	1
GC Miscellaneous SW-846 8015B modified mg/kg mg/kg mg/kg						
08283	Diethylene glycol	111-46-6	5.2 U	5.2	10	1
08283	Ethylene glycol	107-21-1	5.2 U	5.2	10	1
08283	Propylene glycol	57-55-6	5.2 U	5.2	10	1
GC Petroleum SW-846 8015B mg/kg mg/kg mg/kg						
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.6	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.6	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.6	1
GC Petroleum SW-846 8015B modified mg/kg mg/kg mg/kg						
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.53 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	6.5	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	12	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals SW-846 6010B mg/kg mg/kg mg/kg						
01643	Aluminum	7429-90-5	15,700	6.18	20.4	1
07914	Boron	7440-42-8	5.96	0.368	5.11	1
01650	Calcium	7440-70-2	2,750	2.55	20.4	1
01654	Iron	7439-89-6	23,500	2.67	20.4	1
01656	Lithium	7439-93-2	25.2	0.63	2.0	1
01657	Magnesium	7439-95-4	6,180	0.449	10.2	1
06958	Manganese	7439-96-5	322	0.0368	0.511	1
10145	Phosphorus	7723-14-0	359	0.357	10.2	1
01662	Potassium	7440-09-7	3,780	11.5	51.1	1
01667	Sodium	7440-23-5	78.9 J	6.08	102	1
07968	Strontium	7440-24-6	14.3	0.0255	0.511	1
06969	Tin	7440-31-5	2.68 J	0.327	10.2	1
06970	Titanium	7440-32-6	1,240	0.0725	1.02	1
10146	Zirconium	7440-67-7	3.10 J	0.470	5.11	1
SW-846 6020 mg/kg mg/kg mg/kg						

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0771 U	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.63	0.0833	0.417	2
06126	Barium	7440-39-3	82.7	0.110	0.417	2
06127	Beryllium	7440-41-7	0.585	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.0879 J	0.0458	0.104	2
06131	Chromium	7440-47-3	22.9	0.125	0.417	2
06132	Cobalt	7440-48-4	6.74	0.0208	0.104	2
06133	Copper	7440-50-8	10.0	0.0833	0.417	2
06135	Lead	7439-92-1	4.83	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.347	0.0521	0.104	2
06139	Nickel	7440-02-0	15.8	0.104	0.417	2
06141	Selenium	7782-49-2	0.132 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0376 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.263	0.0313	0.104	2
06148	Vanadium	7440-62-2	43.1	0.0229	0.104	2
06149	Zinc	7440-66-6	56.4	0.583	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0070 U	0.0070	0.0992	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.84 U	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.8	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.52	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.87	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

General Sample Comments

State of California Lab Certification No. 2501
The volatile analysis was performed on soil from SL-069-SA7-SB-3.0.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/26/2011 23:47	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/25/2011 16:05	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
05551	9a TPH by EPA 8015B Gas C5-C12	TPH GRO SW-846 8015B mod	1	11299A16A	10/26/2011 23:07	Laura M Krieger	26.65
06130	GC - 5 g HL Encore Prep	SW-846 5035	1	201129425935	10/21/2011 15:08	Christopher D Meeks	n.a.
06130	GC - 5 g HL Encore Prep	SW-846 5035	2	201129425935	10/21/2011 15:09	Christopher D Meeks	n.a.
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 22:45	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:41	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 00:59	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:26	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:25	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:41	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-069-SA7-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-069-SA7-SB-2.5-3.5

LLI Sample # SW 6445465
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL069 SDG#: DE273-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:50	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:50	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:50	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:50	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 19:55	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 19:49	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 10:41	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:47	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	1.1 J	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.8 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	8.1 J	6.2	19	1
10138	Chrysene	218-01-9	0.38 J	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.5	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.5	1
10225	Aroclor 5460	11126-42-4	1.4 J	1.0	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC Miscellaneous SW-846 8015B						
10501	Ethanol	64-17-5	110 U	110	530	1
10501	Isopropanol	67-63-0	110 U	110	530	1
10501	Methanol	67-56-1	110 U	110	530	1
GC Miscellaneous SW-846 8015B modified						
08283	Diethylene glycol	111-46-6	5.3 U	5.3	11	1
08283	Ethylene glycol	107-21-1	5.3 U	5.3	11	1
08283	Propylene glycol	57-55-6	5.3 U	5.3	11	1
GC Petroleum SW-846 8015B						
Hydrocarbons						
10318	m-Terphenyl	92-06-8	1.6 U	1.6	3.7	1
10318	o-Terphenyl	84-15-1	1.6 U	1.6	3.7	1
10318	p-Terphenyl	92-94-4	1.6 U	1.6	3.7	1
GC Petroleum SW-846 8015B modified						
Hydrocarbons						
10199	EFH (C12-C14)	n.a.	0.42 U	0.42	1.3	1
10199	EFH (C15-C20)	n.a.	0.71 J	0.42	1.3	1
10199	EFH (C21-C30)	n.a.	5.4	0.42	1.3	1
10199	EFH (C30 - C40)	n.a.	13	0.42	1.3	1
10199	EFH (C8-C11)	n.a.	0.42 U	0.42	1.3	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	14,100	6.24	20.6	1
07914	Boron	7440-42-8	4.61 J	0.371	5.15	1
01650	Calcium	7440-70-2	2,570	2.58	20.6	1
01654	Iron	7439-89-6	19,700	2.69	20.6	1
01656	Lithium	7439-93-2	21.6	0.64	2.1	1
01657	Magnesium	7439-95-4	4,600	0.454	10.3	1
06958	Manganese	7439-96-5	253	0.0371	0.515	1
10145	Phosphorus	7723-14-0	258	0.361	10.3	1
01662	Potassium	7440-09-7	2,220	11.6	51.5	1
01667	Sodium	7440-23-5	74.8 J	6.13	103	1
07968	Strontium	7440-24-6	14.7	0.0258	0.515	1
06969	Tin	7440-31-5	2.69 J	0.330	10.3	1
06970	Titanium	7440-32-6	982	0.0732	1.03	1
10146	Zirconium	7440-67-7	2.66 J	0.474	5.15	1
SW-846 6020						
06124	Antimony	7440-36-0	0.0741 U	0.0741	0.200	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.44	0.0801	0.401	2
06126	Barium	7440-39-3	82.5	0.106	0.401	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	0.607	0.0160	0.100	2
06128	Cadmium	7440-43-9	0.0780 J	0.0441	0.100	2
06131	Chromium	7440-47-3	18.2	0.120	0.401	2
06132	Cobalt	7440-48-4	6.03	0.0200	0.100	2
06133	Copper	7440-50-8	7.01	0.0801	0.401	2
06135	Lead	7439-92-1	5.48	0.0102	0.200	2
06138	Molybdenum	7439-98-7	0.466	0.0501	0.100	2
06139	Nickel	7440-02-0	11.7	0.100	0.401	2
06141	Selenium	7782-49-2	0.147 J	0.0581	0.401	2
06142	Silver	7440-22-4	0.0344 J	0.0142	0.100	2
06145	Thallium	7440-28-0	0.227	0.0300	0.100	2
06148	Vanadium	7440-62-2	35.8	0.0220	0.100	2
06149	Zinc	7440-66-6	52.2	0.561	3.00	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.84	1.1	1
07336	11a Anions by 300.0 - Nitrate	14797-55-8	1.9	0.84	1.6	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.27 J	0.21	1.0	1
	SW-846 9012B		mg/kg	mg/kg	mg/kg	
05895	16a Cyanide by 9012B	57-12-5	0.19 U	0.19	0.53	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.69	0.0100	0.0100	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11624	Moisture Content by 160.3	n.a.	4.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:14	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/25/2011 23:02	Elizabeth J Marin	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	112970037A	10/26/2011 17:57	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	112980042A	10/26/2011 01:12	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	112990013A	11/02/2011 15:04	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113000011A	10/29/2011 00:49	Heather E Williams	1
11238	EFH Extraction - Soils	SW-846 3550B	1	113000011A	10/27/2011 18:00	David S Schrum	1
10303	Terphenyls soil prep	SW-846 3550B	1	112990013A	10/26/2011 17:30	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	112970037A	10/25/2011 21:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	112980042A	10/25/2011 18:25	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:45	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:53	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:53	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-148-SA7-SB-0.0-1.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-148-SA7-SB-0.0-1.0

LLI Sample # SW 6445466
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 14:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL148 SDG#: DE273-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:53	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
07336	11a Anions by 300.0 - Nitrate	EPA 300.0	1	11306621203A	11/03/2011 20:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 11:02	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11300102201A	10/28/2011 08:48	K Robert Caulfeild-James	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11300102201A	10/27/2011 10:15	Nancy J Shoop	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.1 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.3 U	2.3	5.4	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.65 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,700	6.51	21.5	1
07914	Boron	7440-42-8	13.4	0.387	5.38	1
01650	Calcium	7440-70-2	5,730	2.69	21.5	1
01654	Iron	7439-89-6	28,500	14.0	108	5
01656	Lithium	7439-93-2	40.0	0.67	2.2	1
01657	Magnesium	7439-95-4	8,240	0.474	10.8	1
06958	Manganese	7439-96-5	323	0.0387	0.538	1
10145	Phosphorus	7723-14-0	588	0.377	10.8	1
01662	Potassium	7440-09-7	4,200	12.2	53.8	1
01667	Sodium	7440-23-5	164	6.40	108	1
07968	Strontium	7440-24-6	23.1	0.0269	0.538	1
06969	Tin	7440-31-5	2.74 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,380	0.0764	1.08	1
10146	Zirconium	7440-67-7	7.39	0.495	5.38	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0804 U	0.0804	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.73	0.0870	0.435	2
06126	Barium	7440-39-3	70.5	0.115	0.435	2
06127	Beryllium	7440-41-7	0.578	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.0890 J	0.0478	0.109	2
06131	Chromium	7440-47-3	27.9	0.130	0.435	2
06132	Cobalt	7440-48-4	8.63	0.0217	0.109	2
06133	Copper	7440-50-8	10.8	0.0870	0.435	2
06135	Lead	7439-92-1	6.65	0.0111	0.217	2
06138	Molybdenum	7439-98-7	0.303	0.0543	0.109	2
06139	Nickel	7440-02-0	14.4	0.109	0.435	2
06141	Selenium	7782-49-2	0.206 J	0.0630	0.435	2
06142	Silver	7440-22-4	0.0154 U	0.0154	0.109	2
06145	Thallium	7440-28-0	0.269	0.0326	0.109	2
06148	Vanadium	7440-62-2	56.7	0.0239	0.109	2
06149	Zinc	7440-66-6	67.9	0.609	3.26	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.7	0.87	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.20	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	8.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 00:37	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 01:47	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	112980018A	10/26/2011 19:33	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 06:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	112980018A	10/26/2011 09:00	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:20	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445467
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 12:37

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL264 SDG#: DE273-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:49	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:56	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:56	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:56	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:56	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:19	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 20:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.0 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	1.8 J	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,100	6.64	22.0	1
07914	Boron	7440-42-8	17.5	0.395	5.49	1
01650	Calcium	7440-70-2	6,120	2.74	22.0	1
01654	Iron	7439-89-6	37,300	14.3	110	5
01656	Lithium	7439-93-2	52.9	0.68	2.2	1
01657	Magnesium	7439-95-4	10,500	0.483	11.0	1
06958	Manganese	7439-96-5	250	0.0395	0.549	1
10145	Phosphorus	7723-14-0	613	0.384	11.0	1
01662	Potassium	7440-09-7	6,250	12.4	54.9	1
01667	Sodium	7440-23-5	209	6.53	110	1
07968	Strontium	7440-24-6	31.9	0.0274	0.549	1
06969	Tin	7440-31-5	2.98 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,590	0.0779	1.10	1
10146	Zirconium	7440-67-7	7.92	0.505	5.49	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0880 J	0.0812	0.220	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.86	0.0878	0.439	2
06126	Barium	7440-39-3	103	0.116	0.439	2
06127	Beryllium	7440-41-7	0.762	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.108 J	0.0483	0.110	2
06131	Chromium	7440-47-3	35.9	0.132	0.439	2
06132	Cobalt	7440-48-4	8.11	0.0220	0.110	2
06133	Copper	7440-50-8	20.6	0.0878	0.439	2
06135	Lead	7439-92-1	9.82	0.0112	0.220	2
06138	Molybdenum	7439-98-7	0.165	0.0549	0.110	2
06139	Nickel	7440-02-0	22.5	0.110	0.439	2
06141	Selenium	7782-49-2	0.344 J	0.0637	0.439	2
06142	Silver	7440-22-4	0.0195 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.395	0.0329	0.110	2
06148	Vanadium	7440-62-2	67.2	0.0241	0.110	2
06149	Zinc	7440-66-6	98.9	0.615	3.29	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0142 J	0.0077	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	9.1	0.88	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.13	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:02	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:19	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:04	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:23	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:53	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:59	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-026-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-026-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445468
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL269 SDG#: DE273-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/31/2011 06:46	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:59	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:59	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:31	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 13:58	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	7.7 J	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.3 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,000	6.53	21.6	1
07914	Boron	7440-42-8	12.2	0.389	5.40	1
01650	Calcium	7440-70-2	3,610	2.70	21.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,900	14.1	108	5
01656	Lithium	7439-93-2	31.3	0.67	2.2	1
01657	Magnesium	7439-95-4	7,700	0.475	10.8	1
06958	Manganese	7439-96-5	295	0.0389	0.540	1
10145	Phosphorus	7723-14-0	372	0.378	10.8	1
01662	Potassium	7440-09-7	3,930	12.2	54.0	1
01667	Sodium	7440-23-5	903	6.42	108	1
07968	Strontium	7440-24-6	34.3	0.0270	0.540	1
06969	Tin	7440-31-5	2.92 J	0.346	10.8	1
06970	Titanium	7440-32-6	1,330	0.0767	1.08	1
10146	Zirconium	7440-67-7	8.67	0.497	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0827 J	0.0799	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.45	0.0864	0.432	2
06126	Barium	7440-39-3	107	0.114	0.432	2
06127	Beryllium	7440-41-7	0.852	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.0595 J	0.0475	0.108	2
06131	Chromium	7440-47-3	36.9	0.130	0.432	2
06132	Cobalt	7440-48-4	10.5	0.0216	0.108	2
06133	Copper	7440-50-8	12.8	0.0864	0.432	2
06135	Lead	7439-92-1	8.46	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.606	0.0540	0.108	2
06139	Nickel	7440-02-0	19.5	0.108	0.432	2
06141	Selenium	7782-49-2	0.112 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0407 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.353	0.0324	0.108	2
06148	Vanadium	7440-62-2	70.5	0.0238	0.108	2
06149	Zinc	7440-66-6	69.5	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	25.0	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.2	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.05	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:28	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 02:52	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:23	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:27	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:57	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:02	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-4.0-5.0

LLI Sample # SW 6445469
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 10:01

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL404 SDG#: DE273-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:02	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:02	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:42	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621201B	11/03/2011 21:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:35	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	7.7 J	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	8.4 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	23,800	6.38	21.1	1
07914	Boron	7440-42-8	9.92	0.380	5.27	1
01650	Calcium	7440-70-2	3,970	2.64	21.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	31,200	13.8	105	5
01656	Lithium	7439-93-2	30.1	0.65	2.1	1
01657	Magnesium	7439-95-4	7,470	0.464	10.5	1
06958	Manganese	7439-96-5	339	0.0380	0.527	1
10145	Phosphorus	7723-14-0	467	0.369	10.5	1
01662	Potassium	7440-09-7	2,760	11.9	52.7	1
01667	Sodium	7440-23-5	848	6.27	105	1
07968	Strontium	7440-24-6	28.2	0.0264	0.527	1
06969	Tin	7440-31-5	2.92 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,240	0.0748	1.05	1
10146	Zirconium	7440-67-7	8.22	0.485	5.27	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0796 U	0.0796	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.47	0.0860	0.430	2
06126	Barium	7440-39-3	90.8	0.114	0.430	2
06127	Beryllium	7440-41-7	0.729	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.0473 U	0.0473	0.108	2
06131	Chromium	7440-47-3	39.9	0.129	0.430	2
06132	Cobalt	7440-48-4	10.7	0.0215	0.108	2
06133	Copper	7440-50-8	10.4	0.0860	0.430	2
06135	Lead	7439-92-1	7.86	0.0110	0.215	2
06138	Molybdenum	7439-98-7	0.471	0.0538	0.108	2
06139	Nickel	7440-02-0	19.3	0.108	0.430	2
06141	Selenium	7782-49-2	0.164 J	0.0624	0.430	2
06142	Silver	7440-22-4	0.0203 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.280	0.0323	0.108	2
06148	Vanadium	7440-62-2	67.5	0.0237	0.108	2
06149	Zinc	7440-66-6	62.7	0.602	3.23	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0141 J	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	17.1	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.35	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 01:53	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 07:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:31	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:01	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:05	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-040-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-040-SA5DS-SB-9.0-10.0

LLI Sample # SW 6445470
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 09:20

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL409 SDG#: DE273-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:05	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:05	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:05	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:22	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 20:54	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 14:40	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 11:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 5

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	8.2 J	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	9.5 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,400	6.63	21.9	1
07914	Boron	7440-42-8	9.65	0.395	5.48	1
01650	Calcium	7440-70-2	11,200	2.74	21.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,900	2.86	21.9	1
01656	Lithium	7439-93-2	24.6	0.68	2.2	1
01657	Magnesium	7439-95-4	4,600	0.482	11.0	1
06958	Manganese	7439-96-5	403	0.0395	0.548	1
10145	Phosphorus	7723-14-0	300	0.384	11.0	1
01662	Potassium	7440-09-7	3,940	12.4	54.8	1
01667	Sodium	7440-23-5	83.0 J	6.52	110	1
07968	Strontium	7440-24-6	21.1	0.0274	0.548	1
06969	Tin	7440-31-5	2.71 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,150	0.0779	1.10	1
10146	Zirconium	7440-67-7	4.78 J	0.504	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0780 U	0.0780	0.211	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.12	0.0843	0.422	2
06126	Barium	7440-39-3	116	0.112	0.422	2
06127	Beryllium	7440-41-7	0.735	0.0169	0.105	2
06128	Cadmium	7440-43-9	0.176	0.0464	0.105	2
06131	Chromium	7440-47-3	22.5	0.127	0.422	2
06132	Cobalt	7440-48-4	8.16	0.0211	0.105	2
06133	Copper	7440-50-8	12.1	0.0843	0.422	2
06135	Lead	7439-92-1	6.92	0.0108	0.211	2
06138	Molybdenum	7439-98-7	0.490	0.0527	0.105	2
06139	Nickel	7440-02-0	16.1	0.105	0.422	2
06141	Selenium	7782-49-2	0.0647 J	0.0612	0.422	2
06142	Silver	7440-22-4	0.0377 J	0.0150	0.105	2
06145	Thallium	7440-28-0	0.313	0.0316	0.105	2
06148	Vanadium	7440-62-2	43.7	0.0232	0.105	2
06149	Zinc	7440-66-6	62.0	0.590	3.16	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.87	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	3.1	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.17	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.8	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11295SLA026	10/27/2011 02:19	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11295SLC026	10/26/2011 03:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11295SLC026	10/24/2011 11:30	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11295SLA026	10/24/2011 10:05	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:05	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-016-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-016-SA8S-SB-4.0-5.0

LLI Sample # SW 6445471
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 15:08

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

SL016 SDG#: DE273-09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:08	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203A	11/03/2011 21:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11298621201B	11/04/2011 15:01	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 12:15	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203A	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621201B	10/25/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403A	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11301162401B	10/28/2011 22:37	Lisa J Cooke	1

Sample Description: TB-102011 Water
SSFL Area IV Collocated Soil Sampling
TB-102011

LLI Sample # WW 6445473
LLI Group # 1272534
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/20/2011 08:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/21/2011 09:15

Reported: 11/18/2011 12:00

TB120 SDG#: DE273-11TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles						
	TPH GRO SW-8015B		ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	11300A20A	10/27/2011 17:05	Catherine J Schwarz	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471								
Aniline	170 U	170.	500	ug/kg	63		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	85		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	93		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	95		73-114		
Carbazole	17 U	17.	170	ug/kg	101		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	100		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	42		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	87		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	85		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	71		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	92		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	96		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	82		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	33		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	97		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	100		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	77		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	76		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	105		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	96		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	96		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	87		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	84		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	82		61-109		
Isophorone	17 U	17.	170	ug/kg	92		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	93		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	102		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	96		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	81		49-98		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Nitrobenzene	17 U	17.	170	ug/kg	91		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	100		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	85		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	100		51-117		
Phenol	17 U	17.	170	ug/kg	96		58-112		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	90		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	101		78-111		
Batch number: 11295SLC026 Sample number(s): 6445463-6445471									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	89		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	81		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	88		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	93		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	86		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	91		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	94		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	86		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	86		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	94		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	87		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	89		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	96		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	91		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	90		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	103		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	84		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	86		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	94		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	99		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	88		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		
Batch number: 11299A16A Sample number(s): 6445463-6445465									
9a TPH by EPA 8015B Gas C5-C12	0.2 U	0.2	1.0	mg/kg	74	75	67-119	2	30
Batch number: 11300A20A Sample number(s): 6445473									
TPH-GRO S.CA water C5-C12	20 U	20.	50	ug/l	109	109	75-135	0	30
Batch number: 112980018A Sample number(s): 6445467									
6a Perchlorate EPA 6850	2.1 U	2.1	5.0	ug/kg	100		85-115		
Batch number: 112990025A Sample number(s): 6445463-6445471									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	85	61	36-106	32*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	117		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	153*		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 112970037A	Sample number(s): 6445463-6445466								
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100 U	100.	500	ug/kg	95		75-125		
Methanol	100 U	100.	500	ug/kg	100		68-129		
Batch number: 112980042A	Sample number(s): 6445463-6445466								
Diethylene glycol	5.0 U	5.0	10	mg/kg	100		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	106		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 112990013A	Sample number(s): 6445463-6445466								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	102		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	104		69-109		
Batch number: 113000011A	Sample number(s): 6445463-6445466								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	96		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	99		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	99		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	88		49-107		
Batch number: 112971026003A	Sample number(s): 6445463-6445471								
Antimony	0.0705 U	0.0705	0.190	mg/kg	79		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	105		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	104		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	102		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	112		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	107		81-110		
Lead	0.0121 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	101		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	103		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	100		82-112		
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.533 U	0.533	2.86	mg/kg	99		82-110		
Batch number: 112971026003B	Sample number(s): 6445463-6445471								
Selenium	0.0552 U	0.0552	0.381	mg/kg	101		79-110		
Batch number: 112971026003C	Sample number(s): 6445463-6445471								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	101		80-110		
Batch number: 112971026003D	Sample number(s): 6445463-6445471								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 112975708006	Sample number(s): 6445463-6445471								
Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCS D Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Boron	0.447 J	0.360	5.00	mg/kg	102		83-110		
Calcium	17.2 J	2.50	20.0	mg/kg	95		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	2.05 J	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0480 J	0.0360	0.500	mg/kg	101		85-116		
Phosphorus	1.14 J	0.350	10.0	mg/kg	103		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	103		76-110		
Strontium	0.0770 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.18 J	0.320	10.0	mg/kg	94		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	91		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	101		80-120		
Batch number: 112975711003	Sample number(s): 6445463-6445471								
Mercury	0.0070 U	0.0070	0.0989	mg/kg	111		83-119		
Batch number: 11298621201B	Sample number(s): 6445463-6445471								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	99		85-115		
Batch number: 11300102201A	Sample number(s): 6445463-6445466								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	96		80-120		
Batch number: 11305243201A	Sample number(s): 6445463-6445471								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	95		80-120		
Batch number: 11306621203A	Sample number(s): 6445463-6445471								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
11a Anions by 300.0 - Nitrate	0.80 U	0.80	1.5	mg/kg	102		90-110		
Batch number: 11300039403A	Sample number(s): 6445463-6445471								
17a pH by 9045C					100		95-105		
Batch number: 11301162401B	Sample number(s): 6445463-6445471								
Moisture Content by 160.3					99		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11295SLA026	Sample number(s): 6445463-6445471 UNSPK: P443490								
Aniline	65	74	18-116	13	30				
Benzidine	0*	0*	35-141	0	30				
Benzoic acid	74	58	10-173	25	30				
Benzyl alcohol	90	94	67-115	5	30				
4-Bromophenyl-phenylether	92	96	67-129	4	30				
Carbazole	92	98	64-120	6	30				
4-Chloro-3-methylphenol	94	99	62-122	6	30				
4-Chloroaniline	55	70	13-107	24	30				
bis(2-Chloroethoxy)methane	93	98	75-104	6	30				
bis(2-Chloroethyl)ether	88	90	60-116	2	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
bis(2-Chloroisopropyl)ether	84	86	55-142	2	30				
2-Chloronaphthalene	71	74	50-141	4	30				
2-Chlorophenol	94	97	73-121	3	30				
4-Chlorophenyl-phenylether	94	97	80-109	3	30				
Dibenzofuran	91	96	71-112	5	30				
1,2-Dichlorobenzene	85	87	66-108	2	30				
1,3-Dichlorobenzene	85	86	63-109	1	30				
1,4-Dichlorobenzene	85	86	58-108	2	30				
3,3'-Dichlorobenzidine	39	55	28-109	33*	30				
2,4-Dichlorophenol	97	100	66-123	3	30				
2,4-Dimethylphenol	93	98	68-118	5	30				
3,5-Dimethylphenol	98	104	71-127	5	30				
4,6-Dinitro-2-methylphenol	80	46	11-126	53*	30				
2,4-Dinitrophenol	65	20	20-143	104*	30				
2,4-Dinitrotoluene	98	100	56-129	2	30				
2,6-Dinitrotoluene	97	101	69-123	4	30				
1,2-Diphenylhydrazine	94	97	71-129	3	30				
Hexachlorobenzene	91	96	77-114	5	30				
Hexachlorobutadiene	86	91	62-120	6	30				
Hexachlorocyclopentadiene	87	86	10-153	1	30				
Hexachloroethane	84	84	57-109	0	30				
Isophorone	89	94	73-102	5	30				
2-Methylphenol	95	97	75-111	2	30				
4-Methylphenol	93	95	59-123	1	30				
2-Nitroaniline	98	101	67-125	3	30				
3-Nitroaniline	93	100	59-122	7	30				
4-Nitroaniline	81	89	41-109	10	30				
Nitrobenzene	89	95	57-125	7	30				
2-Nitrophenol	90	91	56-127	2	30				
4-Nitrophenol	86	90	37-129	5	30				
N-Nitroso-di-n-propylamine	84	87	60-116	3	30				
N-Nitrosodiphenylamine	95	98	71-122	4	30				
Pentachlorophenol	96	87	28-127	9	30				
Phenol	96	100	58-126	4	30				
1,2,4-Trichlorobenzene	88	93	72-115	5	30				
2,4,5-Trichlorophenol	94	98	58-129	4	30				
2,4,6-Trichlorophenol	94	96	56-134	2	30				
Batch number: 11295SLC026 Sample number(s): 6445463-6445471 UNSPK: P443491									
Acenaphthene	92	89	63-105	3	30				
Acenaphthylene	88	85	67-114	3	30				
Anthracene	95	92	73-115	3	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	92	90	58-142	2	30				
Benzo(b)fluoranthene	91	88	54-163	3	30				
Benzo(g,h,i)perylene	102	98	33-141	4	30				
Benzo(k)fluoranthene	93	92	57-153	1	30				
Butylbenzylphthalate	100	96	57-173	5	30				
Di-n-butylphthalate	94	94	65-148	0	30				
Chrysene	98	97	67-123	1	30				
Dibenz(a,h)anthracene	104	101	22-133	2	30				
Diethylphthalate	91	88	70-136	4	30				
Dimethylphthalate	94	91	74-118	3	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Bis(2-Ethylhexyl)phthalate	124	119	39-167	4	30				
Fluoranthene	95	94	51-149	1	30				
Fluorene	91	88	66-122	3	30				
Indeno(1,2,3-cd)pyrene	104	100	21-143	3	30				
1-Methylnaphthalene	86	82	72-123	5	30				
2-Methylnaphthalene	85	82	64-103	4	30				
Naphthalene	87	83	61-102	5	30				
N-Nitrosodimethylamine	96	89	48-113	8	30				
Di-n-octylphthalate	89	89	40-192	0	30				
Phenanthrene	91	88	62-122	3	30				
Pyrene	95	88	51-131	7	30				
Batch number: 112980018A	Sample number(s): 6445467 UNSPK: P439929								
6a Perchlorate EPA 6850	100	104	80-120	4	20				
Batch number: 112990025A	Sample number(s): 6445463-6445471 UNSPK: P446810								
PCB-1016	109	123	29-146	12	50				
PCB-1260	110	118	39-149	7	50				
Batch number: 112970037A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
Ethanol	84	91	48-130	8	20				
Isopropanol	90	94	12-149	5	20				
Methanol	89	100	43-138	11	20				
Batch number: 112980042A	Sample number(s): 6445463-6445466 UNSPK: P437195								
Diethylene glycol	47*	48*	59-109	3	20				
Ethylene glycol	75	75	63-107	1	20				
Propylene glycol	77	78	63-107	0	20				
Batch number: 112990013A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
m-Terphenyl	107	105	75-125	2	20				
o-Terphenyl	106	105	75-125	2	20				
p-Terphenyl	106	104	75-125	2	20				
Batch number: 113000011A	Sample number(s): 6445463-6445466 UNSPK: 6445463								
EFH (C12-C14)	119	283*	49-123	59*	20				
EFH (C15-C20)	494*	190*	49-123	55*	20				
EFH (C21-C30)	1022	728 (2)	49-123	20	20				
	(2)								
EFH (C30 - C40)	292 (2)	353 (2)	49-123	5	20				
EFH (C8-C11)	90	90	49-123	0	20				
Batch number: 112971026003A	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Antimony	28*	28*	75-125	1	20	0.103 J	0.0806 J	25* (1)	20
Arsenic	82	57*	75-125	6	20	6.62	6.98	5	20
Beryllium	90	72*	75-125	10	20	0.824	0.814	1	20
Cadmium	105	96	75-125	9	20	0.0882 J	0.0745 J	17 (1)	20
Chromium	88	60*	75-125	9	20	25.6	25.3	1	20
Cobalt	101	97	75-125	4	20	7.66	7.86	3	20
Copper	95	89	75-125	3	20	11.4	11.8	4	20
Lead	101	50*	75-125	15	20	7.46	7.35	1	20
Nickel	92	85	75-125	3	20	15.3	15.6	2	20
Silver	104	102	75-125	2	20	0.0299 J	0.0293 J	2 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Thallium	92	79	75-125	8	20	0.319	0.280	13 (1)	20
Vanadium	80 (2)	51 (2)	75-125	5	20	49.7	50.1	1	20
Zinc	67 (2)	45 (2)	75-125	4	20	53.4	53.2	0	20
Batch number: 112971026003B	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Selenium	91	97	75-125	5	20	0.0790 J	0.0998 J	23* (1)	20
Batch number: 112971026003C	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Molybdenum	94	92	75-125	3	20	0.533	0.502	6	20
Batch number: 112971026003D	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Barium	43 (2)	-80 (2)	75-125	11	20	109	113	3	20
Batch number: 112975708006	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Aluminum	1918 (2)	-1788 (2)	75-125	27*	20	27,400	28,100	2	20
Boron	96	92	84-115	2	20	9.74	9.76	0 (1)	20
Calcium	-52 (2)	77 (2)	75-125	4	20	12,800	11,100	14	20
Iron	2334 (2)	-2778 (2)	75-125	20	20	25,600	27,400	7	20
Lithium	103	91	82-114	8	20	26.0	27.0	4	20
Magnesium	254 (2)	-105 (2)	75-125	14	20	5,070	5,250	4	20
Manganese	42 (2)	52 (2)	75-125	2	20	282	320	13	20
Phosphorus	87	98	75-125	5	20	168	165	2	20
Potassium	151*	80	75-125	18	20	2,640	2,740	3	20
Sodium	100	93	75-125	6	20	75.4 J	75.9 J	1 (1)	20
Strontium	99	96	75-115	1	20	19.6	19.5	0	20
Tin	81	80	80-110	1	20	2.73 J	2.88 J	5 (1)	20
Titanium	218 (2)	155 (2)	75-125	5	20	1,070	1,110	4	20
Zirconium	96	88	81-110	6	20	5.00	6.41	25* (1)	20
Batch number: 112975711003	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
Mercury	95	102	65-135	9	20	0.0150 J	0.0204 J	30* (1)	20
Batch number: 11298621201B	Sample number(s): 6445463-6445471 UNSPK: 6445463 BKG: 6445463								
7a Perchlorate EPA 314.0	108		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11300102201A	Sample number(s): 6445463-6445466 UNSPK: P443491 BKG: P443491								
16a Cyanide by 9012B	102		75-125			0.18 U	0.18 U	0 (1)	20
Batch number: 11305243201A	Sample number(s): 6445463-6445471 UNSPK: P446810 BKG: P446810								
3a Cr VI by EPA 7199	94		75-125			0.21 J	0.56 J	90* (1)	20
Batch number: 11306621203A	Sample number(s): 6445463-6445471 UNSPK: 6445463 BKG: 6445463								
11a Anions by 300.0 - Fluoride	73*		80-120			1.1	0.80 U	200* (1)	20
11a Anions by 300.0 - Nitrate	104		80-120			2.3	2.1	9 (1)	20
Batch number: 11300039403A	Sample number(s): 6445463-6445471 BKG: 6445463								
17a pH by 9045C						6.58	6.60	0	3
Batch number: 11301162401B	Sample number(s): 6445463-6445471 BKG: 6445471								
Moisture Content by 160.3						8.8	8.8	0	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11295SLA026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	96	97	84	89	92	102
6445464	88	91	81	82	85	93
6445465	95	97	82	84	86	96
6445466	88	90	81	83	86	96
6445467	88	91	75	85	86	96
6445468	91	93	70	83	83	98
6445469	89	92	69	84	86	95
6445470	87	89	71	79	82	96
6445471	91	94	70	83	84	99
Blank	86	90	84	86	88	99
LCS	89	90	91	85	88	101
MS	92	94	86	86	87	96
MSD	95	98	89	91	92	101
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11295SLC026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6445463	90	55	69
6445464	96	79	68
6445465	92	78	72
6445466	86	77	71
6445467	88	79	88
6445468	82	72	82
6445469	85	77	86
6445470	79	72	82
6445471	87	60	85
Blank	93	82	81
LCS	98	81	86
MS	100	83	84
MSD	97	80	80
Limits:	40-130	45-130	45-135

Analysis Name: 9a TPH by EPA 8015B Gas C5-C12
Batch number: 11299A16A
Trifluorotoluene-F

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

6445463 119
6445464 90
6445465 91
Blank 96
LCS 89
LCSD 93

Limits: 61-122

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11300A20A
Trifluorotoluene-F

6445473 86
Blank 88
LCS 117
LCSD 115

Limits: 63-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 112990025A
Tetrachloro-m-xylene Decachlorobiphenyl

6445463	110	121*
6445464	115	129*
6445465	117	131*
6445466	97	109
6445467	101	106
6445468	104	96
6445469	101	113
6445470	107	113
6445471	95	100
Blank	103	124*
LCS	136	163*
LCSD	101	113
MS	108	109
MSD	104	118

Limits: 53-139 45-120

Analysis Name: 18a Alcohols by 8015B
Batch number: 112970037A
Acetone

6445463 89
6445464 92
6445465 94
6445466 89
Blank 97
LCS 103
MS 94
MSD 95

Limits: 42-138

Analysis Name: 19a Glycols by 8015B

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 12:00 PM

Group Number: 1272534

Surrogate Quality Control

Batch number: 112980042A
Tetramethylene glycol

6445463	88
6445464	88
6445465	86
6445466	87
Blank	100
LCS	99
MS	88
MSD	87

Limits: 29-137

Analysis Name: 22a Terphenyls by 8015B
Batch number: 112990013A
n-Triacontane-d62

6445463	86
6445464	78
6445465	75
6445466	93
Blank	76
LCS	76
MS	95
MSD	85

Limits: 19-152

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel
Batch number: 113000011A
Chlorobenzene Orthoterphenyl

6445463	84	87
6445464	89	91
6445465	85	89
6445466	90	92
Blank	83	87
LCS	80	90
MS	85	75
MSD	88	81

Limits: 37-125

47-145

*- Outside of specification

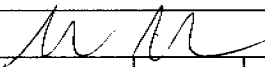
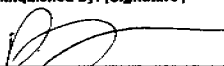
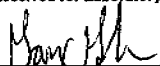
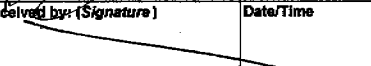
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

13013 1272534 6445463-73

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																											
Samplers Signatures: 																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/8200/8471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCPs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex. Chlorine EPA 7169	*PH EPA 8045C/8040B	Perchlorate Confirmation by EPA 8850 (10%)	*TPH-GRO EPA 8015B \$	*TPH-LEPH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*Tri-NDMA EPA 1629C	*Etiopetals EPA 8330A	*Cyanide EPA 9012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	*Dioxins EPA 8270		
SL-023-SA7-SB-2.5	10.20.11	0915	SOIL	NONE	2-Encores									X													
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	1-SS Sieve			X	X																		
SL-023-SA7-SB-2.0-3.0	10.20.11	0918	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X				X	X	X	X				
SL-060-SA7-SB-9.0	10.20.11	1100	SOIL	NONE	2-Encores									X													
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	1-SS Sieve			X	X																		
SL-060-SA7-SB-2.5-3.5	10.20.11	1105	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X				X	X	X	X				
SL-069-SA7-SB-3.0	10.20.11	1520	SOIL	NONE	2-Encores									X													
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	1-SS Sieve			X	X																		
SL-069-SA7-SB-2.5-3.5	10.20.11	1523	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X				X	X	X	X				
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	1-SS Sieve			X	X																		
SL-148-SA7-SB-0.0-1.0	10.20.11	1423	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X		X	X				X	X	X	X				
SL-026-SA5DS-SB-4.0-5.0	10.20.11	1237	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X	X													
SL-026-SA5DS-SB-9.0-10.0	10.20.11	1155	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-040-SA5DS-SB-4.0-5.0	10.20.11	1001	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-040-SA5DS-SB-9.0-10.0	10.20.11	0920	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-016-SA8S-SB-4.0-5.0	10.20.11	1508	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
EB-SA5DS-SB-102011	10.20.11	1400	WATER	NONE	1-1 L Amber													X							HGL ASTM II WATER-DTP crew		
TB-4042044-102011 NIK	10.20.11	0800	WATER	NONE	2-40 mL Vials									X													
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																				Laboratory:			
		10/20/2011 / 1630		 10/21/11 0915																				Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No. (s)																							
				8767 9858 7618,7629																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 18, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2011

Group Number: 1272728

SDG: DE277

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-017-SA8S-SB-4.0-5.0 Soil	6446809
SL-018-SA8S-SB-4.0-5.0 Soil	6446810
SL-018-SA8S-SB-4.0-5.0MS Soil	6446811
SL-018-SA8S-SB-4.0-5.0MSD Soil	6446812
SL-018-SA8S-SB-4.0-5.0DUP Soil	6446813
SL-018-SA8S-SB-4.0-5.0RL MS Soil	6446814
SL-018-SA8S-SB-4.0-5.0RL LCS Soil	6446815
SL-018-SA8S-SB-7.5-8.5 Soil	6446816
DUP02-SA8S-QC-102111 Soil	6446817
SL-065-SA7-SB-2.0-3.0 Soil	6446818
SL-014-SA8S-SB-4.0-5.0 Soil	6446819
SL-014-SA8S-SB-7.0-8.0 Soil	6446820
SL-015-SA8S-SB-4.0-5.0 Soil	6446821
SL-015-SA8S-SB-9.0-10.0 Soil	6446822

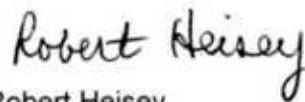
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	1.0 J	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.82 J	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	34	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.87 J	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	50	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,400	6.51	21.5	1
07914	Boron	7440-42-8	11.5	0.387	5.38	1
01650	Calcium	7440-70-2	5,480	2.69	21.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,700	14.0	108	5
01656	Lithium	7439-93-2	27.9	0.67	2.2	1
01657	Magnesium	7439-95-4	6,630	0.474	10.8	1
06958	Manganese	7439-96-5	299	0.0387	0.538	1
10145	Phosphorus	7723-14-0	399	0.377	10.8	1
01662	Potassium	7440-09-7	3,490	12.2	53.8	1
01667	Sodium	7440-23-5	94.3 J	6.40	108	1
07968	Strontium	7440-24-6	22.0	0.0269	0.538	1
06969	Tin	7440-31-5	2.80 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,200	0.0764	1.08	1
10146	Zirconium	7440-67-7	6.32	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.138 J	0.0789	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.70	0.0853	0.426	2
06126	Barium	7440-39-3	74.8	0.113	0.426	2
06127	Beryllium	7440-41-7	0.757	0.0171	0.107	2
06128	Cadmium	7440-43-9	0.159	0.0469	0.107	2
06131	Chromium	7440-47-3	28.5	0.128	0.426	2
06132	Cobalt	7440-48-4	9.96	0.0213	0.107	2
06133	Copper	7440-50-8	15.0	0.0853	0.426	2
06135	Lead	7439-92-1	8.87	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.555	0.0533	0.107	2
06139	Nickel	7440-02-0	17.7	0.107	0.426	2
06141	Selenium	7782-49-2	0.233 J	0.0618	0.426	2
06142	Silver	7440-22-4	0.0315 J	0.0151	0.107	2
06145	Thallium	7440-28-0	0.291	0.0320	0.107	2
06148	Vanadium	7440-62-2	48.3	0.0234	0.107	2
06149	Zinc	7440-66-6	68.2	0.597	3.20	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0172 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	32.9	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.44 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	6.89	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 02:44	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 07:45	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:35	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:09	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:11	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446809
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7301 SDG#: DE277-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:11	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:11	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:27	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:16	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 02:08	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 12:29	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.51 J	0.37	1.9	1
10225	PCB-1254	11097-69-1	1.9 J	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.80 J	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	30,600	6.63	21.9	1
07914	Boron	7440-42-8	10.9	0.394	5.48	1
01650	Calcium	7440-70-2	14,300	2.74	21.9	1
01654	Iron	7439-89-6	28,600	14.3	110	5
01656	Lithium	7439-93-2	29.1	0.68	2.2	1
01657	Magnesium	7439-95-4	5,660	0.482	11.0	1
06958	Manganese	7439-96-5	315	0.0394	0.548	1
10145	Phosphorus	7723-14-0	187	0.383	11.0	1
01662	Potassium	7440-09-7	2,950	12.4	54.8	1
01667	Sodium	7440-23-5	84.3 J	6.52	110	1
07968	Strontium	7440-24-6	21.8	0.0274	0.548	1
06969	Tin	7440-31-5	3.05 J	0.351	11.0	1
06970	Titanium	7440-32-6	1,190	0.0778	1.10	1
10146	Zirconium	7440-67-7	5.59	0.504	5.48	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.115 J	0.0827	0.223	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.40	0.0894	0.447	2
06126	Barium	7440-39-3	122	0.118	0.447	2
06127	Beryllium	7440-41-7	0.920	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.0985 J	0.0492	0.112	2
06131	Chromium	7440-47-3	28.6	0.134	0.447	2
06132	Cobalt	7440-48-4	8.56	0.0223	0.112	2
06133	Copper	7440-50-8	12.7	0.0894	0.447	2
06135	Lead	7439-92-1	8.34	0.0114	0.223	2
06138	Molybdenum	7439-98-7	0.596	0.0559	0.112	2
06139	Nickel	7440-02-0	17.1	0.112	0.447	2
06141	Selenium	7782-49-2	0.0883 J	0.0648	0.447	2
06142	Silver	7440-22-4	0.0334 J	0.0159	0.112	2
06145	Thallium	7440-28-0	0.357	0.0335	0.112	2
06148	Vanadium	7440-62-2	55.5	0.0246	0.112	2
06149	Zinc	7440-66-6	59.7	0.626	3.35	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0168 J	0.0078	0.111	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.91	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.87	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 20:23	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 06:05	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:38	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:00	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:01	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:19	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446810
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:19	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:19	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:19	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:28	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 21:17	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:04	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 12:49	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 6

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	19	190	1
04688	Acenaphthylene	208-96-8	1,900	19	190	1
04688	Aniline	62-53-3	1,400	190	560	1
04688	Anthracene	120-12-7	1,900	19	190	1
04688	Benziidine	92-87-5	2,500	J 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,700	19	190	1
04688	Benzo(a)pyrene	50-32-8	1,900	19	190	1
04688	Benzo(b)fluoranthene	205-99-2	1,900	19	190	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	19	190	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	19	190	1
04688	Benzoic acid	65-85-0	530	J 190	560	1
04688	Benzyl alcohol	100-51-6	1,800	190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	1,800	19	190	1
04688	Butylbenzylphthalate	85-68-7	1,800	19	190	1
04688	Di-n-butylphthalate	84-74-2	1,800	19	190	1
04688	Carbazole	86-74-8	1,800	19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	37	190	1
04688	4-Chloroaniline	106-47-8	1,200	74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,700	19	190	1
04688	2-Chloronaphthalene	91-58-7	1,600	19	190	1
04688	2-Chlorophenol	95-57-8	1,800	19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	190	1
04688	Chrysene	218-01-9	1,700	19	190	1
04688	Dibenz(a,h)anthracene	53-70-3	1,800	19	190	1
04688	Dibenzofuran	132-64-9	1,800	19	190	1
04688	1,2-Dichlorobenzene	95-50-1	1,600	19	190	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	19	190	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	900	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,900	19	190	1
04688	Diethylphthalate	84-66-2	1,800	19	190	1
04688	2,4-Dimethylphenol	105-67-9	1,800	37	190	1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	190	1
04688	Dimethylphthalate	131-11-3	1,800	19	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,200	190	560	1
04688	2,4-Dinitrophenol	51-28-5	1,500	370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,800	37	190	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	1,900	19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,700	19	370	1
04688	Fluoranthene	206-44-0	1,900	19	190	1
04688	Fluorene	86-73-7	1,800	19	190	1
04688	Hexachlorobenzene	118-74-1	1,800	19	190	1
04688	Hexachlorobutadiene	87-68-3	1,700	74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	3,300	190	560	1
04688	Hexachloroethane	67-72-1	1,500	19	190	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	19	190	1
04688	Isophorone	78-59-1	1,800	19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	19	190	1
04688	2-Methylnaphthalene	91-57-6	1,800	19	190	1
04688	2-Methylphenol	95-48-7	1,800	37	190	1
04688	4-Methylphenol	106-44-5	1,800	37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,700	19	190	1
04688	2-Nitroaniline	88-74-4	1,900	19	190	1
04688	3-Nitroaniline	99-09-2	1,800	37	190	1
04688	4-Nitroaniline	100-01-6	1,500	74	190	1
04688	Nitrobenzene	98-95-3	1,800	19	190	1
04688	2-Nitrophenol	88-75-5	1,700	19	190	1
04688	4-Nitrophenol	100-02-7	1,600	190	560	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	37	190	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,700	19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	1,800	19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	2,000	19	190	1
04688	Pentachlorophenol	87-86-5	1,600	190	560	1
04688	Phenanthrene	85-01-8	1,800	19	190	1
04688	Phenol	108-95-2	1,900	19	190	1
04688	Pyrene	129-00-0	1,800	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	1,800	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	32	0.74	1.9	1
10138	Acenaphthylene	208-96-8	32	0.37	1.9	1
10138	Anthracene	120-12-7	34	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	34	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	34	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	35	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	36	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	36	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	39	6.7	20	1
10138	Chrysene	218-01-9	34	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	36	0.74	1.9	1
10138	Diethylphthalate	84-66-2	36	6.7	20	1
10138	Dimethylphthalate	131-11-3	36	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	49	6.7	20	1
10138	Fluoranthene	206-44-0	35	0.74	1.9	1
10138	Fluorene	86-73-7	35	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	35	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	31	0.74	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.74	1.9	1
10138	Naphthalene	91-20-3	31	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	32	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	54	6.7	20	1
10138	Phenanthrene	85-01-8	33	0.74	1.9	1
10138	Pyrene	129-00-0	34	0.74	1.9	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	20	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	22	0.37	1.9	1
10225	PCB-1254	11097-69-1	4.6	0.37	1.9	1
10225	PCB-1260	11096-82-5	21	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	34,800	6.63	21.9	1
07914	Boron	7440-42-8	220	0.394	5.48	1
01650	Calcium	7440-70-2	14,100	2.74	21.9	1
01654	Iron	7439-89-6	31,200	14.3	110	5
01656	Lithium	7439-93-2	142	0.68	2.2	1
01657	Magnesium	7439-95-4	6,220	0.482	11.0	1
06958	Manganese	7439-96-5	338	0.0394	0.548	1
10145	Phosphorus	7723-14-0	282	0.383	11.0	1
01662	Potassium	7440-09-7	4,610	12.4	54.8	1
01667	Sodium	7440-23-5	1,180	6.52	110	1
07968	Strontium	7440-24-6	131	0.0274	0.548	1
06969	Tin	7440-31-5	357	0.351	11.0	1
06970	Titanium	7440-32-6	1,430	0.0778	1.10	1
10146	Zirconium	7440-67-7	111	0.504	5.48	1
SW-846 6020						
06124	Antimony	7440-36-0	0.476	0.0803	0.217	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.19	0.0868	0.434	2
06126	Barium	7440-39-3	126	0.115	0.434	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals			mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	1.70	0.0174	0.108	2
06128	Cadmium	7440-43-9	1.23	0.0477	0.108	2
06131	Chromium	7440-47-3	38.1	0.130	0.434	2
06132	Cobalt	7440-48-4	63.1	0.0217	0.108	2
06133	Copper	7440-50-8	23.1	0.0868	0.434	2
06135	Lead	7439-92-1	11.6	0.0111	0.217	2
06138	Molybdenum	7439-98-7	10.8	0.0542	0.108	2
06139	Nickel	7440-02-0	27.1	0.108	0.434	2
06141	Selenium	7782-49-2	2.07	0.0629	0.434	2
06142	Silver	7440-22-4	11.3	0.0154	0.108	2
06145	Thallium	7440-28-0	0.755	0.0325	0.108	2
06148	Vanadium	7440-62-2	64.2	0.0239	0.108	2
06149	Zinc	7440-66-6	66.9	0.607	3.25	2
SW-846 6020			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.185	0.0074	0.106	1
SW-846 7471A			mg/kg	mg/kg	mg/kg	
Wet Chemistry			mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.0	0.91	1.1	1
EPA 314.0			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	587	10.1	33.5	1
SW-846 7199			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	42.5	1.1	5.6	5
Wet Chemistry			%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 20:49	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 06:38	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 08:57	Jessica L Miller	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:12	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:13	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:31	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	2	11313621201A	11/09/2011 15:34	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:47	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 13:02	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11306621203B	11/09/2011 06:05	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 6 of 6

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446811
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,800	18	180	1
04688	Acenaphthylene	208-96-8	1,900	18	180	1
04688	Aniline	62-53-3	1,300	180	550	1
04688	Anthracene	120-12-7	1,800	18	180	1
04688	Benziidine	92-87-5	2,500	J 1,300	3,700	1
04688	Benzo(a)anthracene	56-55-3	1,800	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,800	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,800	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,800	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,900	18	180	1
04688	Benzoic acid	65-85-0	530	J 180	550	1
04688	Benzyl alcohol	100-51-6	1,800	180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	1,700	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,800	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,800	18	180	1
04688	Carbazole	86-74-8	1,800	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,800	37	180	1
04688	4-Chloroaniline	106-47-8	1,200	74	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,800	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,700	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,600	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,700	18	180	1
04688	2-Chlorophenol	95-57-8	1,800	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,800	37	180	1
04688	Chrysene	218-01-9	1,700	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,700	18	180	1
04688	Dibenzofuran	132-64-9	1,700	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,600	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	900	110	370	1
04688	2,4-Dichlorophenol	120-83-2	1,800	18	180	1
04688	Diethylphthalate	84-66-2	1,800	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,800	37	180	1
04688	3,5-Dimethylphenol	108-68-9	1,900	37	180	1
04688	Dimethylphthalate	131-11-3	1,800	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	1,300	180	550	1
04688	2,4-Dinitrophenol	51-28-5	1,500	370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,900	37	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,900	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,800	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,800	18	370	1
04688	Fluoranthene	206-44-0	1,900	18	180	1
04688	Fluorene	86-73-7	1,800	18	180	1
04688	Hexachlorobenzene	118-74-1	1,700	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,600	74	180	1
04688	Hexachlorocyclopentadiene	77-47-4	3,100	180	550	1
04688	Hexachloroethane	67-72-1	1,500	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,800	18	180	1
04688	Isophorone	78-59-1	1,800	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,700	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,800	18	180	1
04688	2-Methylphenol	95-48-7	1,800	37	180	1
04688	4-Methylphenol	106-44-5	1,700	37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,700	18	180	1
04688	2-Nitroaniline	88-74-4	1,800	18	180	1
04688	3-Nitroaniline	99-09-2	1,800	37	180	1
04688	4-Nitroaniline	100-01-6	1,600	74	180	1
04688	Nitrobenzene	98-95-3	1,800	18	180	1
04688	2-Nitrophenol	88-75-5	1,700	18	180	1
04688	4-Nitrophenol	100-02-7	1,700	180	550	1
04688	N-Nitrosodimethylamine	62-75-9	1,600	37	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,600	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,700	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	2,000	18	180	1
04688	Pentachlorophenol	87-86-5	1,500	180	550	1
04688	Phenanthrene	85-01-8	1,800	18	180	1
04688	Phenol	108-95-2	1,800	18	180	1
04688	Pyrene	129-00-0	1,700	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,700	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,800	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.73	1.8	1
10138	Acenaphthylene	208-96-8	34	0.37	1.8	1
10138	Anthracene	120-12-7	34	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	36	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	35	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	38	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	38	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	40	6.6	20	1
10138	Chrysene	218-01-9	35	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	36	0.73	1.8	1
10138	Diethylphthalate	84-66-2	37	6.6	20	1
10138	Dimethylphthalate	131-11-3	37	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	54	6.6	20	1
10138	Fluoranthene	206-44-0	36	0.73	1.8	1
10138	Fluorene	86-73-7	36	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	35	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	32	0.73	1.8	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	32	0.73	1.8	1
10138	Naphthalene	91-20-3	33	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	34	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	67	6.6	20	1
10138	Phenanthrene	85-01-8	34	0.73	1.8	1
10138	Pyrene	129-00-0	35	0.73	1.8	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	23	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	22	0.37	1.9	1
10225	PCB-1254	11097-69-1	6.2	0.37	1.9	1
10225	PCB-1260	11096-82-5	23	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	26,600	6.76	22.3	1
07914	Boron	7440-42-8	215	0.402	5.59	1
01650	Calcium	7440-70-2	14,600	2.79	22.3	1
01654	Iron	7439-89-6	25,500	2.92	22.3	1
01656	Lithium	7439-93-2	131	0.69	2.2	1
01657	Magnesium	7439-95-4	5,430	0.492	11.2	1
06958	Manganese	7439-96-5	344	0.0402	0.559	1
10145	Phosphorus	7723-14-0	296	0.391	11.2	1
01662	Potassium	7440-09-7	3,850	12.6	55.9	1
01667	Sodium	7440-23-5	1,120	6.65	112	1
07968	Strontium	7440-24-6	129	0.0279	0.559	1
06969	Tin	7440-31-5	359	0.358	11.2	1
06970	Titanium	7440-32-6	1,370	0.0793	1.12	1
10146	Zirconium	7440-67-7	104	0.514	5.59	1
SW-846 6020						
06124	Antimony	7440-36-0	0.470	0.0795	0.215	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.63	0.0859	0.430	2
06126	Barium	7440-39-3	113	0.114	0.430	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
		SW-846 6020	mg/kg	mg/kg	mg/kg	
06127	Beryllium	7440-41-7	1.54	0.0172	0.107	2
06128	Cadmium	7440-43-9	1.13	0.0473	0.107	2
06131	Chromium	7440-47-3	35.0	0.129	0.430	2
06132	Cobalt	7440-48-4	60.8	0.0215	0.107	2
06133	Copper	7440-50-8	22.3	0.0859	0.430	2
06135	Lead	7439-92-1	9.95	0.0110	0.215	2
06138	Molybdenum	7439-98-7	10.5	0.0537	0.107	2
06139	Nickel	7440-02-0	26.2	0.107	0.430	2
06141	Selenium	7782-49-2	2.17	0.0623	0.430	2
06142	Silver	7440-22-4	11.0	0.0153	0.107	2
06145	Thallium	7440-28-0	0.697	0.0322	0.107	2
06148	Vanadium	7440-62-2	61.0	0.0236	0.107	2
06149	Zinc	7440-66-6	64.5	0.602	3.22	2
		SW-846 7471A	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.203	0.0077	0.110	1
Wet Chemistry						
		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 21:14	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 07:11	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:16	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446812
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:17	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:32	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,400	6.76	22.3	1
07914	Boron	7440-42-8	10.9	0.402	5.59	1
01650	Calcium	7440-70-2	12,400	2.79	22.3	1
01654	Iron	7439-89-6	30,600	14.6	112	5
01656	Lithium	7439-93-2	30.1	0.69	2.2	1
01657	Magnesium	7439-95-4	5,870	0.492	11.2	1
06958	Manganese	7439-96-5	357	0.0402	0.559	1
10145	Phosphorus	7723-14-0	184	0.391	11.2	1
01662	Potassium	7440-09-7	3,060	12.6	55.9	1
01667	Sodium	7440-23-5	84.8 J	6.65	112	1
07968	Strontium	7440-24-6	21.7	0.0279	0.559	1
06969	Tin	7440-31-5	3.22 J	0.358	11.2	1
06970	Titanium	7440-32-6	1,240	0.0793	1.12	1
10146	Zirconium	7440-67-7	7.16	0.514	5.59	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0900 J	0.0811	0.219	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.80	0.0876	0.438	2
06126	Barium	7440-39-3	126	0.116	0.438	2
06127	Beryllium	7440-41-7	0.909	0.0175	0.110	2
06128	Cadmium	7440-43-9	0.0833 J	0.0482	0.110	2
06131	Chromium	7440-47-3	28.2	0.131	0.438	2
06132	Cobalt	7440-48-4	8.78	0.0219	0.110	2
06133	Copper	7440-50-8	13.2	0.0876	0.438	2
06135	Lead	7439-92-1	8.21	0.0112	0.219	2
06138	Molybdenum	7439-98-7	0.561	0.0548	0.110	2
06139	Nickel	7440-02-0	17.5	0.110	0.438	2
06141	Selenium	7782-49-2	0.112 J	0.0635	0.438	2
06142	Silver	7440-22-4	0.0328 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.313	0.0329	0.110	2
06148	Vanadium	7440-62-2	55.9	0.0241	0.110	2
06149	Zinc	7440-66-6	59.4	0.613	3.29	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0228 J	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.88	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.63 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.91	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	10.7	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 17:08	John P Hook	5
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 07:09	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 19:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 19:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 19:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446813
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 19:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:29	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 21:29	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 01:25	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 13:59	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-018-SA8S-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446814
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	3.0	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	2.8	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-018-SA8S-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446815
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7302 SDG#: DE277-02RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.7 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	2.0	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 09:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	14 J	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.5 U	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	5.5	0.36	1.8	1
10225	PCB-1260	11096-82-5	1.1 J	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS and this sample is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,900	6.53	21.6	1
07914	Boron	7440-42-8	3.99 J	0.389	5.40	1
01650	Calcium	7440-70-2	8,290	2.70	21.6	1
01654	Iron	7439-89-6	17,400	2.82	21.6	1
01656	Lithium	7439-93-2	23.9	0.67	2.2	1
01657	Magnesium	7439-95-4	3,170	0.475	10.8	1
06958	Manganese	7439-96-5	179	0.0389	0.540	1
10145	Phosphorus	7723-14-0	358	0.378	10.8	1
01662	Potassium	7440-09-7	1,680	12.2	54.0	1
01667	Sodium	7440-23-5	73.6 J	6.43	108	1
07968	Strontium	7440-24-6	21.2	0.0270	0.540	1
06969	Tin	7440-31-5	2.87 J	0.346	10.8	1
06970	Titanium	7440-32-6	986	0.0767	1.08	1
10146	Zirconium	7440-67-7	3.02 J	0.497	5.40	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0783 U	0.0783	0.212	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.24	0.0847	0.423	2
06126	Barium	7440-39-3	77.2	0.112	0.423	2
06127	Beryllium	7440-41-7	0.519	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.0466 U	0.0466	0.106	2
06131	Chromium	7440-47-3	12.7	0.127	0.423	2
06132	Cobalt	7440-48-4	5.54	0.0212	0.106	2
06133	Copper	7440-50-8	6.42	0.0847	0.423	2
06135	Lead	7439-92-1	4.81	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.393	0.0529	0.106	2
06139	Nickel	7440-02-0	7.43	0.106	0.423	2
06141	Selenium	7782-49-2	0.0614 U	0.0614	0.423	2
06142	Silver	7440-22-4	0.0258 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.242	0.0318	0.106	2
06148	Vanadium	7440-62-2	31.5	0.0233	0.106	2
06149	Zinc	7440-66-6	48.7	0.593	3.18	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0072 U	0.0072	0.103	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.87 U	0.87	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7303 SDG#: DE277-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified Std. Units						
00394	17a pH by 9045C	n.a.	8.33	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 21:39	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 08:19	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 11:27	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:13	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446816
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.

Submitted: 10/22/2011 09:30

14420 Albemarle Point Place

Reported: 11/18/2011 11:59

Suite 210

Chantilly VA 20151

E7303 SDG#: DE277-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:14	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:14	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:14	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:14	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:33	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:28	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 02:50	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:13	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	27,400	6.51	21.5	1
07914	Boron	7440-42-8	9.11	0.387	5.38	1
01650	Calcium	7440-70-2	26,100	2.69	21.5	1
01654	Iron	7439-89-6	27,000	2.81	21.5	1
01656	Lithium	7439-93-2	27.4	0.67	2.2	1
01657	Magnesium	7439-95-4	5,210	0.473	10.8	1
06958	Manganese	7439-96-5	363	0.0387	0.538	1
10145	Phosphorus	7723-14-0	219	0.376	10.8	1
01662	Potassium	7440-09-7	3,050	12.2	53.8	1
01667	Sodium	7440-23-5	83.1 J	6.40	108	1
07968	Strontium	7440-24-6	23.4	0.0269	0.538	1
06969	Tin	7440-31-5	2.70 J	0.344	10.8	1
06970	Titanium	7440-32-6	1,090	0.0764	1.08	1
10146	Zirconium	7440-67-7	5.19 J	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.100 J	0.0820	0.221	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.72	0.0886	0.443	2
06126	Barium	7440-39-3	114	0.117	0.443	2
06127	Beryllium	7440-41-7	0.862	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.0919 J	0.0487	0.111	2
06131	Chromium	7440-47-3	26.8	0.133	0.443	2
06132	Cobalt	7440-48-4	7.19	0.0221	0.111	2
06133	Copper	7440-50-8	11.7	0.0886	0.443	2
06135	Lead	7439-92-1	7.48	0.0113	0.221	2
06138	Molybdenum	7439-98-7	0.550	0.0554	0.111	2
06139	Nickel	7440-02-0	15.5	0.111	0.443	2
06141	Selenium	7782-49-2	0.162 J	0.0642	0.443	2
06142	Silver	7440-22-4	0.0444 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.285	0.0332	0.111	2
06148	Vanadium	7440-62-2	51.7	0.0244	0.111	2
06149	Zinc	7440-66-6	52.8	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0271 J	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.25	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:04	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 08:52	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 11:46	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:24	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446817
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7304 SDG#: DE277-04FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:26	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:26	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:26	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:26	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:34	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:39	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,400	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	34	U 34	170	1
04688	4-Chloroaniline	106-47-8	69	U 69	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	34	U 34	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	340	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	34	U 34	170	1
04688	3,5-Dimethylphenol	108-68-9	34	U 34	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	340	U 340	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	34	U 34	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	69	U 69	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	34	U 34	170	1
04688	4-Methylphenol	106-44-5	34	U 34	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	34	U 34	170	1
04688	4-Nitroaniline	100-01-6	69	U 69	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Tetralin	119-64-2	170 U	170	170	1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.					
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	34 U	34	170	1
04688	2,4,6-Trichlorophenol	88-06-2	34 U	34	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.34 U	0.34	1.7	1
10138	Anthracene	120-12-7	0.34 U	0.34	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.34 U	0.34	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.40 U	0.40	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.						
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
SW-846 6010B						
01643	Aluminum	7429-90-5	13,000	6.24	20.6	1
07914	Boron	7440-42-8	4.54 J	0.371	5.16	1
01650	Calcium	7440-70-2	4,150	2.58	20.6	1
01654	Iron	7439-89-6	20,800	2.69	20.6	1
01656	Lithium	7439-93-2	25.6	0.64	2.1	1
01657	Magnesium	7439-95-4	4,780	0.454	10.3	1
06958	Manganese	7439-96-5	278	0.0371	0.516	1
10145	Phosphorus	7723-14-0	334	0.361	10.3	1
01662	Potassium	7440-09-7	2,510	11.7	51.6	1
01667	Sodium	7440-23-5	82.4 J	6.14	103	1
07968	Strontium	7440-24-6	14.7	0.0258	0.516	1
06969	Tin	7440-31-5	2.70 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,040	0.0732	1.03	1
10146	Zirconium	7440-67-7	2.99 J	0.474	5.16	1
SW-846 6020						
06124	Antimony	7440-36-0	0.0734 U	0.0734	0.198	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.16	0.0794	0.397	2
06126	Barium	7440-39-3	68.1	0.105	0.397	2
06127	Beryllium	7440-41-7	0.505	0.0159	0.0992	2
06128	Cadmium	7440-43-9	0.0859 J	0.0437	0.0992	2
06131	Chromium	7440-47-3	15.6	0.119	0.397	2
06132	Cobalt	7440-48-4	5.17	0.0198	0.0992	2
06133	Copper	7440-50-8	7.95	0.0794	0.397	2
06135	Lead	7439-92-1	4.72	0.0101	0.198	2
06138	Molybdenum	7439-98-7	0.357	0.0496	0.0992	2
06139	Nickel	7440-02-0	9.90	0.0992	0.397	2
06141	Selenium	7782-49-2	0.0800 J	0.0575	0.397	2
06142	Silver	7440-22-4	0.0177 J	0.0141	0.0992	2
06145	Thallium	7440-28-0	0.258	0.0298	0.0992	2
06148	Vanadium	7440-62-2	31.9	0.0218	0.0992	2
06149	Zinc	7440-66-6	53.9	0.556	2.98	2
SW-846 7471A						
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
EPA 300.0						
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.84	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry EPA 314.0						
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.3	1
SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.01	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:30	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 09:25	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:05	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446818
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7305 SDG#: DE277-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:28	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:35	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 22:51	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:32	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 14:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,400	6.38	21.1	1
07914	Boron	7440-42-8	11.5	0.380	5.28	1
01650	Calcium	7440-70-2	60,400	13.2	106	5
01654	Iron	7439-89-6	25,500	2.75	21.1	1
01656	Lithium	7439-93-2	24.6	0.65	2.1	1
01657	Magnesium	7439-95-4	5,750	0.464	10.6	1
06958	Manganese	7439-96-5	366	0.0380	0.528	1
10145	Phosphorus	7723-14-0	490	0.369	10.6	1
01662	Potassium	7440-09-7	2,980	11.9	52.8	1
01667	Sodium	7440-23-5	88.7 J	6.28	106	1
07968	Strontium	7440-24-6	62.5	0.0264	0.528	1
06969	Tin	7440-31-5	2.50 J	0.338	10.6	1
06970	Titanium	7440-32-6	964	0.0749	1.06	1
10146	Zirconium	7440-67-7	3.69 J	0.485	5.28	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0773 J	0.0766	0.207	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.54	0.0828	0.414	2
06126	Barium	7440-39-3	87.1	0.110	0.414	2
06127	Beryllium	7440-41-7	0.676	0.0166	0.104	2
06128	Cadmium	7440-43-9	0.203	0.0455	0.104	2
06131	Chromium	7440-47-3	24.8	0.124	0.414	2
06132	Cobalt	7440-48-4	7.79	0.0207	0.104	2
06133	Copper	7440-50-8	13.3	0.0828	0.414	2
06135	Lead	7439-92-1	7.86	0.0106	0.207	2
06138	Molybdenum	7439-98-7	0.405	0.0518	0.104	2
06139	Nickel	7440-02-0	14.3	0.104	0.414	2
06141	Selenium	7782-49-2	0.245 J	0.0600	0.414	2
06142	Silver	7440-22-4	0.0205 J	0.0147	0.104	2
06145	Thallium	7440-28-0	0.288	0.0311	0.104	2
06148	Vanadium	7440-62-2	45.1	0.0228	0.104	2
06149	Zinc	7440-66-6	60.1	0.580	3.11	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.86	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.3	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.96	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.1	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 22:56	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 09:58	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:24	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:47	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:32	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446819
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7306 SDG#: DE277-06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/31/2011 06:47	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:37	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:03	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 03:53	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11305243201A	11/04/2011 15:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	20	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	20	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	20	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	30	6.5	20	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	44	6.5	20	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.9	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.9	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.9	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.9	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.9	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.9	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,000	6.53	21.6	1
07914	Boron	7440-42-8	11.8	0.389	5.40	1
01650	Calcium	7440-70-2	110,000	13.5	108	5
01654	Iron	7439-89-6	23,500	2.82	21.6	1
01656	Lithium	7439-93-2	23.6	0.67	2.2	1
01657	Magnesium	7439-95-4	5,890	0.475	10.8	1
06958	Manganese	7439-96-5	398	0.0389	0.540	1
10145	Phosphorus	7723-14-0	481	0.378	10.8	1
01662	Potassium	7440-09-7	3,260	12.2	54.0	1
01667	Sodium	7440-23-5	122	6.42	108	1
07968	Strontium	7440-24-6	107	0.0270	0.540	1
06969	Tin	7440-31-5	2.40 J	0.346	10.8	1
06970	Titanium	7440-32-6	963	0.0767	1.08	1
10146	Zirconium	7440-67-7	4.20 J	0.497	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.113 J	0.0807	0.218	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.73	0.0872	0.436	2
06126	Barium	7440-39-3	92.4	0.116	0.436	2
06127	Beryllium	7440-41-7	0.659	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.233	0.0480	0.109	2
06131	Chromium	7440-47-3	26.1	0.131	0.436	2
06132	Cobalt	7440-48-4	7.85	0.0218	0.109	2
06133	Copper	7440-50-8	14.5	0.0872	0.436	2
06135	Lead	7439-92-1	8.44	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.364	0.0545	0.109	2
06139	Nickel	7440-02-0	15.7	0.109	0.436	2
06141	Selenium	7782-49-2	0.206 J	0.0632	0.436	2
06142	Silver	7440-22-4	0.0180 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.281	0.0327	0.109	2
06148	Vanadium	7440-62-2	45.8	0.0240	0.109	2
06149	Zinc	7440-66-6	58.6	0.611	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0121 J	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1 J	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.9 U	9.9	33.0	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	8.22	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	9.2	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 23:21	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 10:31	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 12:42	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:50	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:37	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446820
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7307 SDG#: DE277-07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:40	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:14	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:14	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.72 U	0.72	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.72 U	0.72	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.72 U	0.72	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 U	0.72	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.72 U	0.72	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.72 U	0.72	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.5 U	6.5	19	1
10138	Di-n-butylphthalate	84-74-2	6.5 U	6.5	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.72 U	0.72	1.8	1
10138	Diethylphthalate	84-66-2	6.5 U	6.5	19	1
10138	Dimethylphthalate	131-11-3	6.5 U	6.5	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.5 U	6.5	19	1
10138	Fluoranthene	206-44-0	0.72 U	0.72	1.8	1
10138	Fluorene	86-73-7	0.72 U	0.72	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.72 U	0.72	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.72 U	0.72	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.72 U	0.72	1.8	1
10138	Naphthalene	91-20-3	0.72 U	0.72	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.72 U	0.72	1.8	1
10138	Di-n-octylphthalate	117-84-0	9.1 J	6.5	19	1
10138	Phenanthrene	85-01-8	0.72 U	0.72	1.8	1
10138	Pyrene	129-00-0	0.72 U	0.72	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.59 J	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,300	6.24	20.6	1
07914	Boron	7440-42-8	12.8	0.371	5.15	1
01650	Calcium	7440-70-2	72,800	12.9	103	5
01654	Iron	7439-89-6	23,200	2.69	20.6	1
01656	Lithium	7439-93-2	23.2	0.64	2.1	1
01657	Magnesium	7439-95-4	5,900	0.454	10.3	1
06958	Manganese	7439-96-5	433	0.0371	0.515	1
10145	Phosphorus	7723-14-0	512	0.361	10.3	1
01662	Potassium	7440-09-7	3,310	11.6	51.5	1
01667	Sodium	7440-23-5	92.9 J	6.13	103	1
07968	Strontium	7440-24-6	72.6	0.0258	0.515	1
06969	Tin	7440-31-5	2.25 J	0.330	10.3	1
06970	Titanium	7440-32-6	893	0.0732	1.03	1
10146	Zirconium	7440-67-7	3.57 J	0.474	5.15	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0770 U	0.0770	0.208	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.76	0.0833	0.416	2
06126	Barium	7440-39-3	95.7	0.110	0.416	2
06127	Beryllium	7440-41-7	0.619	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.239	0.0458	0.104	2
06131	Chromium	7440-47-3	26.2	0.125	0.416	2
06132	Cobalt	7440-48-4	7.94	0.0208	0.104	2
06133	Copper	7440-50-8	13.2	0.0833	0.416	2
06135	Lead	7439-92-1	7.59	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.385	0.0520	0.104	2
06139	Nickel	7440-02-0	15.2	0.104	0.416	2
06141	Selenium	7782-49-2	0.224 J	0.0604	0.416	2
06142	Silver	7440-22-4	0.0154 J	0.0148	0.104	2
06145	Thallium	7440-28-0	0.314	0.0312	0.104	2
06148	Vanadium	7440-62-2	45.2	0.0229	0.104	2
06149	Zinc	7440-66-6	62.7	0.583	3.12	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0079 J	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.87	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
SW-846 9045C modified Std. Units						
00394	17a pH by 9045C	n.a.	7.95	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/27/2011 23:46	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 11:04	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 13:01	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:54	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:41	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446821
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7308 SDG#: DE277-08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/31/2011 06:49	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:41	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:35	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

The Laboratory Control Spike is outside the QC limits for Aroclor 1260. The surrogate recovery associated with the LCS is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Aroclor 5432 and 5460 were not analyzed in the ending calibration associated with the original analysis of this sample.						
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	6.78	22.4	1
07914	Boron	7440-42-8	12.9	0.404	5.61	1
01650	Calcium	7440-70-2	92,700	14.0	112	5
01654	Iron	7439-89-6	25,200	2.93	22.4	1
01656	Lithium	7439-93-2	24.4	0.70	2.2	1
01657	Magnesium	7439-95-4	6,540	0.493	11.2	1
06958	Manganese	7439-96-5	375	0.0404	0.561	1
10145	Phosphorus	7723-14-0	517	0.392	11.2	1
01662	Potassium	7440-09-7	3,020	12.7	56.1	1
01667	Sodium	7440-23-5	116	6.67	112	1
07968	Strontium	7440-24-6	97.7	0.0280	0.561	1
06969	Tin	7440-31-5	2.59 J	0.359	11.2	1
06970	Titanium	7440-32-6	881	0.0796	1.12	1
10146	Zirconium	7440-67-7	4.87 J	0.516	5.61	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.104 J	0.0813	0.220	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.29	0.0879	0.440	2
06126	Barium	7440-39-3	91.4	0.117	0.440	2
06127	Beryllium	7440-41-7	0.751	0.0176	0.110	2
06128	Cadmium	7440-43-9	0.255	0.0484	0.110	2
06131	Chromium	7440-47-3	29.6	0.132	0.440	2
06132	Cobalt	7440-48-4	8.51	0.0220	0.110	2
06133	Copper	7440-50-8	15.0	0.0879	0.440	2
06135	Lead	7439-92-1	9.03	0.0112	0.220	2
06138	Molybdenum	7439-98-7	0.381	0.0550	0.110	2
06139	Nickel	7440-02-0	16.2	0.110	0.440	2
06141	Selenium	7782-49-2	0.436 J	0.0637	0.440	2
06142	Silver	7440-22-4	0.0213 J	0.0156	0.110	2
06145	Thallium	7440-28-0	0.284	0.0330	0.110	2
06148	Vanadium	7440-62-2	51.1	0.0242	0.110	2
06149	Zinc	7440-66-6	59.8	0.615	3.30	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 7199						
05892	3a Cr VI by EPA 7199	18540-29-9	0.26 J	0.22	1.1	1
SW-846 9045C modified						
00394	17a pH by 9045C	n.a.	7.90	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified						
11624	Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11297SLF026	10/28/2011 00:11	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11299SLF026	11/01/2011 11:37	Brian K Graham	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11299SLF026	10/27/2011 08:00	Joseph S Feister	1
00381	BNA Soil Sonication	SW-846 3550B	1	11297SLF026	10/25/2011 08:45	Kerrie A Freeburn	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	112990025A	11/01/2011 13:20	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	112990025A	10/27/2011 10:40	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
07914	Boron	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01650	Calcium	SW-846 6010B	1	112975708006	10/29/2011 17:58	John P Hook	5
01654	Iron	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01656	Lithium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01657	Magnesium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06958	Manganese	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
10145	Phosphorus	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01662	Potassium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
01667	Sodium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
07968	Strontium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06969	Tin	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06970	Titanium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
10146	Zirconium	SW-846 6010B	1	112975708006	10/29/2011 08:45	Damary Valentin	1
06124	Antimony	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446822
LLI Group # 1272728
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/18/2011 11:59

E7309 SDG#: DE277-09*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06126	Barium	SW-846 6020	1	112971026003D	10/26/2011 20:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	112971026003C	10/26/2011 20:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	112971026003B	10/26/2011 20:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	112971026003A	10/26/2011 20:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	112975711003	10/25/2011 18:42	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	112975708006	10/25/2011 11:28	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	112971026003	10/25/2011 12:14	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	112975711003	10/25/2011 13:30	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11306621203B	11/03/2011 23:38	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11298621202A	11/04/2011 04:56	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11305243201A	11/04/2011 15:53	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11306621203B	11/02/2011 08:30	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11298621202A	10/25/2011 06:30	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11300039403B	10/27/2011 11:00	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11305243201A	11/01/2011 10:35	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11297SLF026	Sample number(s): 6446809-6446812, 6446816-6446822								
Acenaphthene	17	U	17.	170	ug/kg	99	76-111		
Acenaphthylene	17	U	17.	170	ug/kg	106	75-122		
Aniline	170		170.	500	ug/kg	68	20-115		
	U								
Anthracene	17	U	17.	170	ug/kg	101	76-112		
Benzidine	1,200		1,200.	3,300	ug/kg	39	15-121		
	U								
Benzo(a)anthracene	17	U	17.	170	ug/kg	97	73-112		
Benzo(a)pyrene	17	U	17.	170	ug/kg	103	65-124		
Benzo(b)fluoranthene	17	U	17.	170	ug/kg	91	61-127		
Benzo(g,h,i)perylene	17	U	17.	170	ug/kg	106	60-125		
Benzo(k)fluoranthene	17	U	17.	170	ug/kg	105	67-125		
Benzoic acid	170		170.	500	ug/kg	86	62-113		
	U								
Benzyl alcohol	170		170.	500	ug/kg	97	68-111		
	U								
4-Bromophenyl-phenylether	17	U	17.	170	ug/kg	98	73-114		
Butylbenzylphthalate	17	U	17.	170	ug/kg	99	75-115		
Di-n-butylphthalate	17	U	17.	170	ug/kg	100	79-112		
Carbazole	17	U	17.	170	ug/kg	99	77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	99	74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	51	10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	99	70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	94	70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	93	62-115		
2-Chloronaphthalene	17	U	17.	170	ug/kg	76	49-128		
2-Chlorophenol	17	U	17.	170	ug/kg	100	72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	98	74-115		
Chrysene	17	U	17.	170	ug/kg	95	76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	105	61-126		
Dibenzofuran	17	U	17.	170	ug/kg	96	74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	91	74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	89	70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	89	74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	37	10-116		
	U								
2,4-Dichlorophenol	17	U	17.	170	ug/kg	102	75-111		
Diethylphthalate	17	U	17.	170	ug/kg	99	76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	99	72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	103	83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	102	77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	79	46-120		
	U								
2,4-Dinitrophenol	330		330.	1,000	ug/kg	75	18-133		
	U								

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	103		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	105		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	100		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	97		75-117		
Fluoranthene	17 U	17.	170	ug/kg	102		78-116		
Fluorene	17 U	17.	170	ug/kg	102		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	98		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	94		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	95		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	87		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	105		64-119		
Isophorone	17 U	17.	170	ug/kg	99		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	95		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	99		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	101		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
Naphthalene	17 U	17.	170	ug/kg	96		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	103		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	94		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	78		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	99		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	98		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	91		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	92		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	85		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	100		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	107		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	93		51-117		
Phenanthrene	17 U	17.	170	ug/kg	98		77-113		
Phenol	17 U	17.	170	ug/kg	103		58-112		
Pyrene	17 U	17.	170	ug/kg	99		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	97		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	100		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	100		78-111		
Batch number: 11299SLF026	Sample number(s): 6446809-6446812, 6446816-6446822								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	91		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	94		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	97		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	95		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	98		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	95		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	103		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	105		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	95		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	101		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	101		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	111		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	97		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	98		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	88		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	87		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	100		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		

Batch number: 112990025A

Sample number(s): 6446809-6446812, 6446814-6446822

Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	85	61	36-106	32*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	117		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	153*		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					

Batch number: 112971026003A

Sample number(s): 6446809-6446813, 6446816-6446822

Antimony	0.0705 U	0.0705	0.190	mg/kg			40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	105		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	104		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	102		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	112		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	107		81-110		
Lead	0.0121 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	101		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	103		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	100		82-112		
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.533 U	0.533	2.86	mg/kg	99		82-110		

Batch number: 112971026003B

Sample number(s): 6446809-6446813, 6446816-6446822

Selenium	0.0552 U	0.0552	0.381	mg/kg	101		79-110		

Batch number: 112971026003C

Sample number(s): 6446809-6446813, 6446816-6446822

Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	101		80-110		

Batch number: 112971026003D

Sample number(s): 6446809-6446813, 6446816-6446822

Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		

Batch number: 112975708006

Sample number(s): 6446809-6446813, 6446816-6446822

Aluminum	6.05 U	6.05	20.0	mg/kg	88		40-127		
Boron	0.447 J	0.360	5.00	mg/kg	102		83-110		
Calcium	17.2 J	2.50	20.0	mg/kg	95		81-110		
Iron	2.61 U	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	101		80-120		
Magnesium	2.05 J	0.440	10.0	mg/kg	91		63-116		
Manganese	0.0480 J	0.0360	0.500	mg/kg	101		85-116		
Phosphorus	1.14 J	0.350	10.0	mg/kg	103		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	103		71-110		
Sodium	5.95 U	5.95	100	mg/kg	103		76-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Strontium	0.0770 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.18 J	0.320	10.0	mg/kg	94		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	91		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	101		80-120		
Batch number: 112975711003	Sample number(s): 6446809-6446813, 6446816-6446822								
Mercury	0.0070 U	0.0070	0.0989	mg/kg	111		83-119		
Batch number: 11298621202A	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	106		85-115		
Batch number: 11305243201A	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	95		80-120		
Batch number: 11306621203B	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	101		90-110		
Batch number: 11313621201A	Sample number(s): 6446811								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	106		90-110		
Batch number: 11300039403B	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822								
17a pH by 9045C					100		95-105		
Batch number: 11305162401A	Sample number(s): 6446809-6446814, 6446816-6446822								
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11297SLF026	Sample number(s): 6446809-6446812, 6446816-6446822 UNSPK: 6446810								
Acenaphthene	97	95	75-115	2	30				
Acenaphthylene	104	104	81-110	0	30				
Aniline	75	70	18-116	8	30				
Anthracene	100	97	75-115	4	30				
Benzidine	27*	27*	35-141	2	30				
Benzo(a)anthracene	93	95	65-122	1	30				
Benzo(a)pyrene	102	99	57-126	3	30				
Benzo(b)fluoranthene	101	98	59-125	4	30				
Benzo(g,h,i)perylene	96	95	59-127	1	30				
Benzo(k)fluoranthene	104	103	56-132	2	30				
Benzoic acid	28	29	10-173	0	30				
Benzyl alcohol	96	95	67-115	1	30				
4-Bromophenyl-phenylether	96	91	67-129	6	30				
Butylbenzylphthalate	96	98	73-134	1	30				
Di-n-butylphthalate	98	97	67-123	2	30				
Carbazole	96	96	64-120	1	30				
4-Chloro-3-methylphenol	99	99	62-122	0	30				
4-Chloroaniline	66	66	13-107	1	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
bis(2-Chloroethoxy)methane	98	98	75-104	1	30				
bis(2-Chloroethyl)ether	91	89	60-116	3	30				
bis(2-Chloroisopropyl)ether	89	86	55-142	4	30				
2-Chloronaphthalene	84	91	50-141	8	30				
2-Chlorophenol	98	96	73-121	3	30				
4-Chlorophenyl-phenylether	97	95	80-109	2	30				
Chrysene	90	92	62-128	1	30				
Dibenz(a,h)anthracene	96	94	65-125	2	30				
Dibenzofuran	95	95	71-112	0	30				
1,2-Dichlorobenzene	85	85	66-108	1	30				
1,3-Dichlorobenzene	81	81	63-109	0	30				
1,4-Dichlorobenzene	83	83	58-108	0	30				
3,3'-Dichlorobenzidine	48	49	28-109	1	30				
2,4-Dichlorophenol	101	98	66-123	3	30				
Diethylphthalate	96	97	66-118	0	30				
2,4-Dimethylphenol	99	96	68-118	4	30				
3,5-Dimethylphenol	105	103	71-127	3	30				
Dimethylphthalate	98	98	64-118	1	30				
4,6-Dinitro-2-methylphenol	67	69	11-126	2	30				
2,4-Dinitrophenol	40	40	20-143	0	30				
2,4-Dinitrotoluene	97	101	56-129	4	30				
2,6-Dinitrotoluene	101	102	69-123	1	30				
1,2-Diphenylhydrazine	100	95	71-129	6	30				
bis(2-Ethylhexyl)phthalate	93	95	63-122	1	30				
Fluoranthene	101	103	73-112	2	30				
Fluorene	97	98	63-121	1	30				
Hexachlorobenzene	96	93	77-114	4	30				
Hexachlorobutadiene	91	88	62-120	4	30				
Hexachlorocyclopentadiene	90	85	10-153	6	30				
Hexachloroethane	80	80	57-109	0	30				
Indeno(1,2,3-cd)pyrene	97	95	61-126	2	30				
Isophorone	97	96	73-102	1	30				
1-Methylnaphthalene	93	92	64-122	1	30				
2-Methylnaphthalene	97	96	76-114	1	30				
2-Methylphenol	99	96	75-111	3	30				
4-Methylphenol	97	94	59-123	4	30				
Naphthalene	93	92	72-116	2	30				
2-Nitroaniline	100	100	67-125	1	30				
3-Nitroaniline	97	98	59-122	1	30				
4-Nitroaniline	81	85	41-109	5	30				
Nitrobenzene	95	95	57-125	1	30				
2-Nitrophenol	93	93	56-127	0	30				
4-Nitrophenol	88	94	37-129	6	30				
N-Nitroso-di-n-propylamine	90	87	60-116	4	30				
N-Nitrosodimethylamine	86	87	47-116	1	30				
N-Nitrosodiphenylamine	99	95	71-122	5	30				
Di-n-octylphthalate	108	106	56-126	2	30				
Pentachlorophenol	84	80	28-127	6	30				
Phenanthrene	97	95	65-125	3	30				
Phenol	102	99	58-126	4	30				
Pyrene	96	94	74-126	3	30				
1,2,4-Trichlorobenzene	92	91	72-115	1	30				
2,4,5-Trichlorophenol	95	93	58-129	3	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4,6-Trichlorophenol	97	96	56-134	2	30				
Batch number: 11299SLF026	Sample number(s): 6446809-6446812, 6446816-6446822 UNSPK: 6446810								
Acenaphthene	87	94	63-105	6	30				
Acenaphthylene	85	92	67-114	6	30				
Anthracene	90	94	73-115	3	30				
Benzo(a)anthracene	92	98	59-128	4	30				
Benzo(a)pyrene	91	96	58-142	3	30				
Benzo(b)fluoranthene	93	99	54-163	5	30				
Benzo(g,h,i)perylene	91	93	33-141	1	30				
Benzo(k)fluoranthene	98	103	57-153	4	30				
Butylbenzylphthalate	97	105	57-173	6	30				
Di-n-butylphthalate	105	109	65-148	2	30				
Chrysene	91	96	67-123	3	30				
Dibenz(a,h)anthracene	95	98	22-133	1	30				
Diethylphthalate	98	101	70-136	2	30				
Dimethylphthalate	97	101	74-118	3	30				
Bis(2-Ethylhexyl)phthalate	132	148	39-167	9	30				
Fluoranthene	95	99	51-149	3	30				
Fluorene	95	99	66-122	2	30				
Indeno(1,2,3-cd)pyrene	94	97	21-143	1	30				
1-Methylnaphthalene	83	88	72-123	4	30				
2-Methylnaphthalene	82	87	64-103	5	30				
Naphthalene	84	90	61-102	5	30				
N-Nitrosodimethylamine	86	93	48-113	6	30				
Di-n-octylphthalate	145	182	40-192	21	30				
Phenanthrene	88	93	62-122	4	30				
Pyrene	92	97	51-131	4	30				
Batch number: 112990025A	Sample number(s): 6446809-6446812, 6446814-6446822 UNSPK: 6446810								
PCB-1016	109	123	29-146	12	50				
PCB-1260	110	118	39-149	7	50				
Batch number: 112971026003A	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Antimony	28*	28*	75-125	1	20	0.103 J	0.0806 J	25* (1)	20
Arsenic	82	57*	75-125	6	20	6.62	6.98	5	20
Beryllium	90	72*	75-125	10	20	0.824	0.814	1	20
Cadmium	105	96	75-125	9	20	0.0882 J	0.0745 J	17 (1)	20
Chromium	88	60*	75-125	9	20	25.6	25.3	1	20
Cobalt	101	97	75-125	4	20	7.66	7.86	3	20
Copper	95	89	75-125	3	20	11.4	11.8	4	20
Lead	101	50*	75-125	15	20	7.46	7.35	1	20
Nickel	92	85	75-125	3	20	15.3	15.6	2	20
Silver	104	102	75-125	2	20	0.0299 J	0.0293 J	2 (1)	20
Thallium	92	79	75-125	8	20	0.319	0.280	13 (1)	20
Vanadium	80 (2)	51 (2)	75-125	5	20	49.7	50.1	1	20
Zinc	67 (2)	45 (2)	75-125	4	20	53.4	53.2	0	20
Batch number: 112971026003B	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Selenium	91	97	75-125	5	20	0.0790 J	0.0998 J	23* (1)	20
Batch number: 112971026003C	Sample number(s): 6446809-6446813, 6446816-6446822 UNSPK: 6446810 BKG: 6446810								
Molybdenum	94	92	75-125	3	20	0.533	0.502	6	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 112971026003D Barium	Sample number(s): 6446809-6446813, 6446816-6446822 43 (2)	-80 (2)	75-125	11	20	109	UNSPK: 6446810 113	BKG: 6446810 3	20
Batch number: 112975708006 Aluminum	Sample number(s): 6446809-6446813, 6446816-6446822 1918 (2)	-1788 (2)	75-125	27*	20	27,400	UNSPK: 6446810 28,100	BKG: 6446810 2	20
Boron	96	92	84-115	2	20	9.74	9.76	0 (1)	20
Calcium	-52 (2)	77 (2)	75-125	4	20	12,800	11,100	14	20
Iron	2334 (2)	-2778 (2)	75-125	20	20	25,600	27,400	7	20
Lithium	103	91	82-114	8	20	26.0	27.0	4	20
Magnesium	254 (2)	-105 (2)	75-125	14	20	5,070	5,250	4	20
Manganese	42 (2)	52 (2)	75-125	2	20	282	320	13	20
Phosphorus	87	98	75-125	5	20	168	165	2	20
Potassium	151*	80	75-125	18	20	2,640	2,740	3	20
Sodium	100	93	75-125	6	20	75.4 J	75.9 J	1 (1)	20
Strontium	99	96	75-115	1	20	19.6	19.5	0	20
Tin	81	80	80-110	1	20	2.73 J	2.88 J	5 (1)	20
Titanium	218 (2)	155 (2)	75-125	5	20	1,070	1,110	4	20
Zirconium	96	88	81-110	6	20	5.00	6.41	25* (1)	20
Batch number: 112975711003 Mercury	Sample number(s): 6446809-6446813, 6446816-6446822 95	102	65-135	9	20	0.0150 J	UNSPK: 6446810 0.0204 J	BKG: 6446810 30* (1)	20
Batch number: 11298621202A 7a Perchlorate EPA 314.0	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822 6446810 107		80-120			9.0 U	UNSPK: 6446810 9.0 U	BKG: 6446810 0 (1)	15
Batch number: 11305243201A 3a Cr VI by EPA 7199	Sample number(s): 6446809-6446811, 6446813, 6446816-6446822 6446810 94		75-125			0.21 J	UNSPK: 6446810 0.56 J	BKG: 6446810 90* (1)	20
Batch number: 11306621203B 11a Anions by 300.0 - Fluoride	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822 6446810 76*		80-120			1.3	UNSPK: 6446810 1.3	BKG: 6446810 0 (1)	20
Batch number: 11313621201A 11a Anions by 300.0 - Fluoride	Sample number(s): 6446811 88		80-120			0.80 U	UNSPK: P462616 1.3	BKG: P462616 200* (1)	20
Batch number: 11300039403B 17a pH by 9045C	Sample number(s): 6446809-6446810, 6446813, 6446816-6446822 7.87					7.91	UNSPK: 6446810 1	BKG: 6446810 3	
Batch number: 11305162401A 28a Moisture Content by 160.3	Sample number(s): 6446809-6446814, 6446816-6446822 10.5					10.7	UNSPK: 6446810 1	BKG: 6446810 20	
Moisture Content by 160.3	10.5					10.7	1	20	
Moisture Content by 160.3	10.5					10.7	1	20	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11297SLF026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6446809	94	97	80	89	92	98
6446810	89	93	82	88	88	98
6446811	94	97	83	91	91	96
6446812	94	97	87	91	91	97
6446816	91	95	85	89	90	98
6446817	78	80	71	74	75	84
6446818	90	94	80	86	88	96
6446819	91	94	81	89	91	94
6446820	90	92	81	84	86	95
6446821	93	95	84	86	88	94
6446822	92	94	85	88	89	96
Blank	92	97	83	92	93	103
LCS	95	99	88	92	93	99
MS	94	97	83	91	91	96
MSD	94	97	87	91	91	97
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11299SLF026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6446809	91	87	94
6446810	84	80	87
6446811	88	84	89
6446812	94	87	91
6446816	91	86	95
6446817	85	84	90
6446818	91	86	91
6446819	91	87	91
6446820	92	87	90
6446821	91	88	94
6446822	88	84	88
Blank	97	95	102
LCS	92	87	90
MS	88	84	89
MSD	94	87	91
Limits:	67-129	63-129	51-141

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 112990025A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6446809	106	111
6446810	112	124*
6446811	108	109
6446812	104	118
6446814	120	141*
6446815	98	113

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/18/11 at 11:59 AM

Group Number: 1272728

Surrogate Quality Control

6446816	108	124*
6446817	217*	247*
6446818	109	120
6446819	96	117
6446820	102	133*
6446821	99	113
6446822	116	130*
Blank	103	124*
LCS	136	163*
LCSD	101	113
MS	108	109
MSD	104	118

Limits: 53-139 45-120

*- Outside of specification

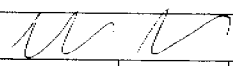
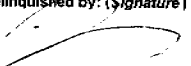
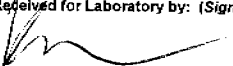
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acc# 13013 Cp# 1272728

Sample# 6446809-24

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																											
Samplers Signatures: 																											
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60100/60200/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chlorine EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EPI EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	**Dowanol EPA 8270		
SL-017-SA8S-SB-4.0-5.0	10.21.11	1113	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-018-SA8S-SB-4.0-5.0MS	10.21.11	1023	SOIL	NONE	6-16 oz Jars	X	X	X	X	X	X	X	X														
SL-018-SA8S-SB-7.5-8.5	10.21.11	0930	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
DUP02-SA8S-QC-102111	10.21.11	1015	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	1-SS Sleeve			X	X																		
SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X														
SL-014-SA8S-SB-4.0-5.0	10.21.11	1431	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-014-SA8S-SB-7.0-8.0	10.21.11	1422	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-015-SA8S-SB-4.0-5.0	10.21.11	1523	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
SL-015-SA8S-SB-9.0-10.0	10.21.11	1519	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X														
EB-SA8S-SB-102111	10.21.11	1430	SOIL	NONE	1-1 L Amber																						
TB-1012111	10.21.11	0800	WATER	NONE	2-40 mL Vials									X				X									
Relinquished by: (Signature) 	Date/Time 10/20/2011 / 1630	Received for Laboratory by: (Signature) 															Laboratory: Lancaster Laboratories, Inc.										
Received by: (Signature)	Date/Time	Airbill No.(s) 8767 9858 7592,7630																									

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 08, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 10/22/2011

Group Number: 1272729

SDG: DX152

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-017-SA8S-SB-4.0-5.0 Soil	6446825
SL-018-SA8S-SB-4.0-5.0 Soil	6446826
SL-018-SA8S-SB-4.0-5.0MS Soil	6446827
SL-018-SA8S-SB-4.0-5.0MSD Soil	6446828
SL-018-SA8S-SB-7.5-8.5 Soil	6446829
DUP02-SA8S-QC-102111 Soil	6446830
SL-065-SA7-SB-2.0-3.0 Soil	6446831
SL-014-SA8S-SB-4.0-5.0 Soil	6446832
SL-014-SA8S-SB-7.0-8.0 Soil	6446833
SL-015-SA8S-SB-4.0-5.0 Soil	6446834
SL-015-SA8S-SB-9.0-10.0 Soil	6446835

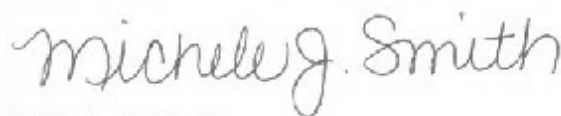
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	8.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0210 U	0.0210	1.06	1
11031	12378-PeCDD	40321-76-4	0.0221 U	0.0221	5.31	1
11031	123478-HxCDD	39227-28-6	0.0181 U	0.0181	5.31	1
11031	123678-HxCDD	57653-85-7	0.0497 JBQ	0.0184	5.31	1
11031	123789-HxCDD	19408-74-3	0.0529 JBQ	0.0183	5.31	1
11031	1234678-HpCDD	35822-46-9	0.257 JB	0.0249	5.31	1
11031	OCDD	3268-87-9	0.605 JB	0.0304	10.6	1
11031	2378-TCDF	51207-31-9	0.0192 U	0.0192	1.06	1
11031	12378-PeCDF	57117-41-6	0.0279 JB	0.0141	5.31	1
11031	23478-PeCDF	57117-31-4	0.0470 JB	0.0144	5.31	1
11031	123478-HxCDF	70648-26-9	0.0490 JBQ	0.0154	5.31	1
11031	123678-HxCDF	57117-44-9	0.0296 JBQ	0.0117	5.31	1
11031	123789-HxCDF	72918-21-9	0.0615 JBQ	0.0122	5.31	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.0108	5.31	1
11031	1234678-HpCDF	67562-39-4	0.140 JB	0.0111	5.31	1
11031	1234789-HpCDF	55673-89-7	0.0257 JBQ	0.0146	5.31	1
11031	OCDF	39001-02-0	0.149 JB	0.0234	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5201 SDG#: DX152-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-017-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-017-SA8S-SB-4.0-5.0

LLI Sample # SW 6446825
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:13

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5201 SDG#: DX152-01

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 02:47	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0263 U	0.0263	1.11	1
11031	12378-PeCDD	40321-76-4	0.0308 U	0.0308	5.56	1
11031	123478-HxCDD	39227-28-6	0.0229 JBQ	0.0184	5.56	1
11031	123678-HxCDD	57653-85-7	0.0187 U	0.0187	5.56	1
11031	123789-HxCDD	19408-74-3	0.0178 U	0.0178	5.56	1
11031	1234678-HpCDD	35822-46-9	0.226 JBQ	0.0219	5.56	1
11031	OCDD	3268-87-9	1.04 JB	0.0330	11.1	1
11031	2378-TCDF	51207-31-9	0.0257 U	0.0257	1.11	1
11031	12378-PeCDF	57117-41-6	0.0171 U	0.0171	5.56	1
11031	23478-PeCDF	57117-31-4	0.0480 JBQ	0.0179	5.56	1
11031	123478-HxCDF	70648-26-9	0.0341 JBQ	0.0161	5.56	1
11031	123678-HxCDF	57117-44-9	0.0279 JB	0.0141	5.56	1
11031	123789-HxCDF	72918-21-9	0.0151 U	0.0151	5.56	1
11031	234678-HxCDF	60851-34-5	0.0260 JBQ	0.0124	5.56	1
11031	1234678-HpCDF	67562-39-4	0.142 JB	0.0104	5.56	1
11031	1234789-HpCDF	55673-89-7	0.0336 JBQ	0.0143	5.56	1
11031	OCDF	39001-02-0	0.173 JBQ	0.0280	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446826
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 03:44	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	21.1 B	0.0299	1.09	1
11031	12378-PeCDD	40321-76-4	98.6 B	0.0431	5.45	1
11031	123478-HxCDD	39227-28-6	97.6 B	0.0332	5.45	1
11031	123678-HxCDD	57653-85-7	97.4 B	0.0341	5.45	1
11031	123789-HxCDD	19408-74-3	108 B	0.0333	5.45	1
11031	1234678-HpCDD	35822-46-9	105 B	0.0644	5.45	1
11031	OCDD	3268-87-9	201 B	0.0361	10.9	1
11031	2378-TCDF	51207-31-9	20.3 B	0.0494	1.09	1
11031	12378-PeCDF	57117-41-6	99.9 B	0.0344	5.45	1
11031	23478-PeCDF	57117-31-4	95.1 B	0.0334	5.45	1
11031	123478-HxCDF	70648-26-9	101 B	0.0645	5.45	1
11031	123678-HxCDF	57117-44-9	101 B	0.0542	5.45	1
11031	123789-HxCDF	72918-21-9	105 B	0.0600	5.45	1
11031	234678-HxCDF	60851-34-5	96.6 B	0.0512	5.45	1
11031	1234678-HpCDF	67562-39-4	92.7 B	0.0413	5.45	1
11031	1234789-HpCDF	55673-89-7	102 B	0.0577	5.45	1
11031	OCDF	39001-02-0	203 B	0.0391	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	91	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446827
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 04:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.7	B	0.0442	1
11031	12378-PeCDD	40321-76-4	103	B	0.0403	1
11031	123478-HxCDD	39227-28-6	102	B	0.0534	1
11031	123678-HxCDD	57653-85-7	99.5	B	0.0544	1
11031	123789-HxCDD	19408-74-3	106	B	0.0495	1
11031	1234678-HpCDD	35822-46-9	108	B	0.0684	1
11031	OCDD	3268-87-9	196	B	0.0422	1
11031	2378-TCDF	51207-31-9	20.5	B	0.0526	1
11031	12378-PeCDF	57117-41-6	98.7	B	0.0372	1
11031	23478-PeCDF	57117-31-4	95.5	B	0.0368	1
11031	123478-HxCDF	70648-26-9	100	B	0.0759	1
11031	123678-HxCDF	57117-44-9	102	B	0.0630	1
11031	123789-HxCDF	72918-21-9	102	B	0.0523	1
11031	234678-HxCDF	60851-34-5	99.7	B	0.0456	1
11031	1234678-HpCDF	67562-39-4	93.4	B	0.0589	1
11031	1234789-HpCDF	55673-89-7	98.6	B	0.0668	1
11031	OCDF	39001-02-0	205	B	0.0493	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	88	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	48	26 - 152
13C12-123678-HxCDF	54	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-4.0-5.0

LLI Sample # SW 6446828
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5202 SDG#: DX152-02MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 05:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	7.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0275 U	0.0275	1.07	1
11031	12378-PeCDD	40321-76-4	0.0308 JBQ	0.0275	5.34	1
11031	123478-HxCDD	39227-28-6	0.0541 JBQ	0.0220	5.34	1
11031	123678-HxCDD	57653-85-7	0.0639 JB	0.0227	5.34	1
11031	123789-HxCDD	19408-74-3	0.0335 JBQ	0.0208	5.34	1
11031	1234678-HpCDD	35822-46-9	0.184 JBQ	0.0256	5.34	1
11031	OCDD	3268-87-9	0.489 JB	0.0336	10.7	1
11031	2378-TCDF	51207-31-9	0.0341 U	0.0341	1.07	1
11031	12378-PeCDF	57117-41-6	0.0509 JBQ	0.0174	5.34	1
11031	23478-PeCDF	57117-31-4	0.0758 JB	0.0176	5.34	1
11031	123478-HxCDF	70648-26-9	0.0575 JBQ	0.0207	5.34	1
11031	123678-HxCDF	57117-44-9	0.0452 JBQ	0.0162	5.34	1
11031	123789-HxCDF	72918-21-9	0.0557 JBQ	0.0173	5.34	1
11031	234678-HxCDF	60851-34-5	0.0667 JB	0.0143	5.34	1
11031	1234678-HpCDF	67562-39-4	0.136 JB	0.0114	5.34	1
11031	1234789-HpCDF	55673-89-7	0.0488 JBQ	0.0176	5.34	1
11031	OCDF	39001-02-0	0.246 JBQ	0.0323	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	92	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	52	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	87	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	68	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-018-SA8S-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-018-SA8S-SB-7.5-8.5

LLI Sample # SW 6446829
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5203 SDG#: DX152-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 06:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0243 U	0.0243	1.10	1
11031	12378-PeCDD	40321-76-4	0.0588 JB	0.0299	5.48	1
11031	123478-HxCDD	39227-28-6	0.0401 JBQ	0.0207	5.48	1
11031	123678-HxCDD	57653-85-7	0.0562 JBQ	0.0210	5.48	1
11031	123789-HxCDD	19408-74-3	0.0766 JBQ	0.0189	5.48	1
11031	1234678-HpCDD	35822-46-9	0.211 JB	0.0230	5.48	1
11031	OCDD	3268-87-9	0.563 JB	0.0341	11.0	1
11031	2378-TCDF	51207-31-9	0.0236 U	0.0236	1.10	1
11031	12378-PeCDF	57117-41-6	0.0565 JBQ	0.0166	5.48	1
11031	23478-PeCDF	57117-31-4	0.0699 JBQ	0.0180	5.48	1
11031	123478-HxCDF	70648-26-9	0.0763 JBQ	0.0197	5.48	1
11031	123678-HxCDF	57117-44-9	0.0378 JBQ	0.0164	5.48	1
11031	123789-HxCDF	72918-21-9	0.0635 JBQ	0.0174	5.48	1
11031	234678-HxCDF	60851-34-5	0.0628 JBQ	0.0151	5.48	1
11031	1234678-HpCDF	67562-39-4	0.135 JBQ	0.0116	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0401 JBQ	0.0155	5.48	1
11031	OCDF	39001-02-0	0.200 JB	0.0294	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	83	23 - 140
13C12-OCDD	83	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5204 SDG#: DX152-04FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-102111 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S-QC-102111

LLI Sample # SW 6446830
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 10:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5204 SDG#: DX152-04FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 07:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0244 U	0.0244	0.994	1
11031	12378-PeCDD	40321-76-4	0.109 JB	0.0250	4.97	1
11031	123478-HxCDD	39227-28-6	0.102 JBQ	0.0305	4.97	1
11031	123678-HxCDD	57653-85-7	0.199 JBQ	0.0308	4.97	1
11031	123789-HxCDD	19408-74-3	0.162 JBQ	0.0293	4.97	1
11031	1234678-HpCDD	35822-46-9	4.42 JB	0.0386	4.97	1
11031	OCDD	3268-87-9	42.6 B	0.0292	9.94	1
11031	2378-TCDF	51207-31-9	0.0253 U	0.0253	0.994	1
11031	12378-PeCDF	57117-41-6	0.173 JB	0.0249	4.97	1
11031	23478-PeCDF	57117-31-4	0.178 JB	0.0253	4.97	1
11031	123478-HxCDF	70648-26-9	1.17 JB	0.0413	4.97	1
11031	123678-HxCDF	57117-44-9	0.160 JBQ	0.0358	4.97	1
11031	123789-HxCDF	72918-21-9	0.0732 JB	0.0411	4.97	1
11031	234678-HxCDF	60851-34-5	0.127 JBQ	0.0343	4.97	1
11031	1234678-HpCDF	67562-39-4	1.27 JB	0.0146	4.97	1
11031	1234789-HpCDF	55673-89-7	0.116 JBQ	0.0231	4.97	1
11031	OCDF	39001-02-0	3.79 JB	0.0335	9.94	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	88	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	96	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	108	23 - 140
13C12-OCDD	105	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	82	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	110	28 - 143
13C12-1234789-HpCDF	80	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-065-SA7-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA7-SB-2.0-3.0

LLI Sample # SW 6446831
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 11:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5205 SDG#: DX152-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 08:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0364 JBQ	0.0269	1.06	1
11031	12378-PeCDD	40321-76-4	0.225 JB	0.0282	5.28	1
11031	123478-HxCDD	39227-28-6	0.112 JB	0.0208	5.28	1
11031	123678-HxCDD	57653-85-7	0.112 JBQ	0.0216	5.28	1
11031	123789-HxCDD	19408-74-3	0.0927 JBQ	0.0200	5.28	1
11031	1234678-HpCDD	35822-46-9	0.294 JB	0.0262	5.28	1
11031	OCDD	3268-87-9	0.521 JB	0.0294	10.6	1
11031	2378-TCDF	51207-31-9	0.0466 JBQ	0.0247	1.06	1
11031	12378-PeCDF	57117-41-6	0.177 JB	0.0161	5.28	1
11031	23478-PeCDF	57117-31-4	0.192 JB	0.0167	5.28	1
11031	123478-HxCDF	70648-26-9	0.153 JBQ	0.0198	5.28	1
11031	123678-HxCDF	57117-44-9	0.146 JB	0.0164	5.28	1
11031	123789-HxCDF	72918-21-9	0.101 JBQ	0.0198	5.28	1
11031	234678-HxCDF	60851-34-5	0.108 JB	0.0165	5.28	1
11031	1234678-HpCDF	67562-39-4	0.142 JBQ	0.00947	5.28	1
11031	1234789-HpCDF	55673-89-7	0.0817 JB	0.0144	5.28	1
11031	OCDF	39001-02-0	0.174 JB	0.0280	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	86	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	53	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5206 SDG#: DX152-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-4.0-5.0

LLI Sample # SW 6446832
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:31

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5206 SDG#: DX152-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 09:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	9.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.137 JBQ	0.0205	1.08	1
11031	12378-PeCDD	40321-76-4	0.312 JB	0.0275	5.40	1
11031	123478-HxCDD	39227-28-6	0.156 JB	0.0224	5.40	1
11031	123678-HxCDD	57653-85-7	0.135 JB	0.0216	5.40	1
11031	123789-HxCDD	19408-74-3	0.162 JB	0.0206	5.40	1
11031	1234678-HpCDD	35822-46-9	0.334 JB	0.0238	5.40	1
11031	OCDD	3268-87-9	0.627 JB	0.0315	10.8	1
11031	2378-TCDF	51207-31-9	0.137 JB	0.0200	1.08	1
11031	12378-PeCDF	57117-41-6	0.391 JB	0.0157	5.40	1
11031	23478-PeCDF	57117-31-4	0.353 JB	0.0165	5.40	1
11031	123478-HxCDF	70648-26-9	0.285 JBQ	0.0346	5.40	1
11031	123678-HxCDF	57117-44-9	0.236 JB	0.0257	5.40	1
11031	123789-HxCDF	72918-21-9	0.205 JBQ	0.0244	5.40	1
11031	234678-HxCDF	60851-34-5	0.156 JB	0.0195	5.40	1
11031	1234678-HpCDF	67562-39-4	0.237 JB	0.0139	5.40	1
11031	1234789-HpCDF	55673-89-7	0.164 JB	0.0173	5.40	1
11031	OCDF	39001-02-0	0.308 JBQ	0.0276	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	37	26 - 152
13C12-123678-HxCDF	49	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-014-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-014-SA8S-SB-7.0-8.0

LLI Sample # SW 6446833
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 14:22

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5207 SDG#: DX152-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 13:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0439 JQ	0.0251	1.08	1
11031	12378-PeCDD	40321-76-4	0.142 JQ	0.0260	5.39	1
11031	123478-HxCDD	39227-28-6	0.0475 JB	0.0213	5.39	1
11031	123678-HxCDD	57653-85-7	0.0751 JBQ	0.0222	5.39	1
11031	123789-HxCDD	19408-74-3	0.0631 JBQ	0.0212	5.39	1
11031	1234678-HpCDD	35822-46-9	0.297 JB	0.0223	5.39	1
11031	OCDD	3268-87-9	0.704 JB	0.0277	10.8	1
11031	2378-TCDF	51207-31-9	0.0507 JQ	0.0194	1.08	1
11031	12378-PeCDF	57117-41-6	0.130 JBQ	0.0124	5.39	1
11031	23478-PeCDF	57117-31-4	0.132 JBQ	0.0128	5.39	1
11031	123478-HxCDF	70648-26-9	0.0805 JB	0.0130	5.39	1
11031	123678-HxCDF	57117-44-9	0.0425 JB	0.0111	5.39	1
11031	123789-HxCDF	72918-21-9	0.0553 JBQ	0.0158	5.39	1
11031	234678-HxCDF	60851-34-5	0.0793 JB	0.0123	5.39	1
11031	1234678-HpCDF	67562-39-4	0.0947 JB	0.00898	5.39	1
11031	1234789-HpCDF	55673-89-7	0.0393 J	0.0194	5.39	1
11031	OCDF	39001-02-0	0.233 JBQ	0.0421	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	89	32 - 141
13C12-123678-HxCDD	90	28 - 130
13C12-123789-HxCDD	87	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	86	24 - 169
13C12-12378-PeCDF	97	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	93	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	118	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-015-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-4.0-5.0

LLI Sample # SW 6446834
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:23

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5208 SDG#: DX152-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11307002	11/05/2011 23:05	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11307002	11/03/2011 09:30	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.8	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 10/22/2011 09:30

Reported: 11/08/2011 23:08

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0198 U	0.0198	1.10	1
11031	12378-PeCDD	40321-76-4	0.0958 JBQ	0.0247	5.48	1
11031	123478-HxCDD	39227-28-6	0.0461 JBQ	0.0175	5.48	1
11031	123678-HxCDD	57653-85-7	0.0523 JBQ	0.0178	5.48	1
11031	123789-HxCDD	19408-74-3	0.0465 JB	0.0182	5.48	1
11031	1234678-HpCDD	35822-46-9	0.248 JBQ	0.0217	5.48	1
11031	OCDD	3268-87-9	0.509 JB	0.0258	11.0	1
11031	2378-TCDF	51207-31-9	0.0269 JB	0.0178	1.10	1
11031	12378-PeCDF	57117-41-6	0.106 JB	0.0137	5.48	1
11031	23478-PeCDF	57117-31-4	0.114 JBQ	0.0142	5.48	1
11031	123478-HxCDF	70648-26-9	0.0940 JBQ	0.0145	5.48	1
11031	123678-HxCDF	57117-44-9	0.0644 JBQ	0.0131	5.48	1
11031	123789-HxCDF	72918-21-9	0.0482 JBQ	0.0151	5.48	1
11031	234678-HxCDF	60851-34-5	0.0588 JB	0.0121	5.48	1
11031	1234678-HpCDF	67562-39-4	0.106 JB	0.00919	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0557 JBQ	0.0137	5.48	1
11031	OCDF	39001-02-0	0.158 JBQ	0.0247	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	88	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.

Submitted: 10/22/2011 09:30

14420 Albemarle Point Place

Reported: 11/08/2011 23:08

Suite 210

Chantilly VA 20151

X5209 SDG#: DX152-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-015-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-015-SA8S-SB-9.0-10.0

LLI Sample # SW 6446835
LLI Group # 1272729
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 10/21/2011 15:19

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 10/22/2011 09:30

Suite 210

Reported: 11/08/2011 23:08

Chantilly VA 20151

X5209 SDG#: DX152-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11301002	10/31/2011 15:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11301002	10/28/2011 10:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11305162401A	11/01/2011 21:43	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11305162401A Moisture Content by 160.3	Sample number(s): 6446825-6446835				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11301002	Sample number(s): 6446825-6446833, 6446835								
2378-TCDD	0.0738 J	0.0256	1.00	ng/kg	94		67-158		
12378-PeCDD	0.349 J	0.0297	5.00	ng/kg	91		70-142		
123478-HxCDD	0.147 J	0.0239	5.00	ng/kg	88		70-164		
123678-HxCDD	0.124 J	0.0230	5.00	ng/kg	91		76-134		
123789-HxCDD	0.145 J	0.0233	5.00	ng/kg	93		64-162		
1234678-HpCDD	0.286 J	0.0210	5.00	ng/kg	93		70-140		
OCDD	0.418 J	0.0269	10.0	ng/kg	91		78-144		
2378-TCDF	0.0617 J	0.0236	1.00	ng/kg	93		75-158		
12378-PeCDF	0.328 J	0.0165	5.00	ng/kg	88		80-134		
23478-PeCDF	0.295 J	0.0166	5.00	ng/kg	86		68-160		
123478-HxCDF	0.197 J	0.0257	5.00	ng/kg	90		72-134		
123678-HxCDF	0.216 J	0.0212	5.00	ng/kg	90		84-130		
123789-HxCDF	0.174 J	0.0210	5.00	ng/kg	94		78-130		
234678-HxCDF	0.159 J	0.0196	5.00	ng/kg	89		70-156		
1234678-HpCDF	0.172 J	0.0113	5.00	ng/kg	85		82-122		
1234789-HpCDF	0.0917 J	0.0149	5.00	ng/kg	88		78-138		
OCDF	0.220 J	0.0265	10.0	ng/kg	91		63-170		

Batch number: 11307002	Sample number(s): 6446834								
2378-TCDD	0.0250 U	0.0250	1.00	ng/kg	110		67-158		
12378-PeCDD	0.0263 U	0.0263	5.00	ng/kg	108		70-142		
123478-HxCDD	0.0229 J	0.0182	5.00	ng/kg	103		70-164		
123678-HxCDD	0.0323 J	0.0182	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0212 J	0.0186	5.00	ng/kg	105		64-162		
1234678-HpCDD	0.268 J	0.0221	5.00	ng/kg	102		70-140		
OCDD	0.412 J	0.0259	10.0	ng/kg	98		78-144		
2378-TCDF	0.0197 U	0.0197	1.00	ng/kg	108		75-158		
12378-PeCDF	0.0304 J	0.0104	5.00	ng/kg	105		80-134		
23478-PeCDF	0.0732 J	0.0110	5.00	ng/kg	99		68-160		
123478-HxCDF	0.0245 J	0.0131	5.00	ng/kg	100		72-134		
123678-HxCDF	0.0169 J	0.0110	5.00	ng/kg	99		84-130		
123789-HxCDF	0.0396 J	0.0154	5.00	ng/kg	101		78-130		
234678-HxCDF	0.0200 J	0.0127	5.00	ng/kg	100		70-156		
1234678-HpCDF	0.0783 J	0.00700	5.00	ng/kg	93		82-122		
1234789-HpCDF	0.0162 U	0.0162	5.00	ng/kg	101		78-138		
OCDF	0.185 J	0.0413	10.0	ng/kg	101		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11305162401A Moisture Content by 160.3	Sample number(s): 6446825-6446835 BKG: P446810 10.5 10.7 1 20								
Batch number: 11301002	Sample number(s): 6446825-6446833, 6446835 UNSPK: 6446826								
2378-TCDD	97	94	67-158	2	25				
12378-PeCDD	91	93	70-142	4	25				
123478-HxCDD	90	92	70-164	4	25				
123678-HxCDD	89	91	76-134	2	25				
123789-HxCDD	99	96	64-162	2	25				
1234678-HpCDD	96	98	70-140	2	25				
OCDD	92	89	78-144	2	25				
2378-TCDF	93	93	75-158	1	25				
12378-PeCDF	92	90	80-134	1	25				
23478-PeCDF	87	87	68-160	0	25				
123478-HxCDF	93	91	72-134	1	25				
123678-HxCDF	93	93	84-130	1	25				
123789-HxCDF	96	93	78-130	3	25				
234678-HxCDF	89	91	70-156	3	25				
1234678-HpCDF	85	85	82-122	1	25				
1234789-HpCDF	93	90	78-138	3	25				
OCDF	93	93	63-170	1	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11301002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6446825	82	71	52	64	74	70
6446826	76	69	59	63	72	68
6446827	74	69	58	65	72	68
6446828	74	67	48	54	74	76
6446829	79	68	52	63	71	67
6446830	74	64	54	62	67	64
6446831	88	83	72	82	83	81
6446832	74	69	53	63	65	60
6446833	76	66	37	49	67	59
6446835	76	71	63	67	72	68
Blank	73	71	53	62	66	67
MS	74	69	58	65	72	68
MSD	74	67	48	54	74	76
OPR	83	72	42	55	73	73
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6446825	81	73	73	84	85	84
6446826	82	71	70	81	78	81
6446827	84	70	70	82	80	78
6446828	71	74	70	77	80	78
6446829	87	71	68	80	84	83
6446830	80	69	63	76	78	77
6446831	110	80	73	95	93	96
6446832	84	64	64	83	75	73
6446833	64	61	59	77	74	76
6446835	86	67	64	83	78	79
Blank	80	69	66	79	77	77
MS	84	70	70	82	80	78
MSD	71	74	70	77	80	78
OPR	71	74	69	88	83	79

Limits: 28-143 26-138 17-157 25-181 32-141 28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6446825	87	94	95	73	79
6446826	83	91	92	67	75
6446827	81	90	91	66	75
6446828	83	88	93	64	74
6446829	86	92	93	65	76
6446830	79	83	83	65	74
6446831	99	108	105	76	93
6446832	79	86	90	64	78
6446833	81	79	81	65	75
6446835	80	87	88	68	78
Blank	79	86	87	60	73
MS	81	90	91	66	75
MSD	83	88	93	64	74
OPR	90	96	94	67	81

Limits: 28-130 23-140 17-157 24-169 24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11307002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6446834	84	82	79	93	82	73
Blank	65	65	64	76	67	64
OPR	71	66	63	79	67	58

Limits: 25-164 21-178 26-152 26-123 28-136 29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6446834	118	67	58	85	89	90
Blank	102	55	46	69	74	78
OPR	107	50	42	73	79	80

Limits: 28-143 26-138 17-157 25-181 32-141 28-130

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/08/11 at 11:08 PM

Group Number: 1272729

Surrogate Quality Control

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6446834	87	91	90	86	97
Blank	75	78	75	64	75
OPR	81	81	78	68	80
Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

acc# 13013 Cp# 1272729

Sample# 0446825-35

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY FOR ALL LOCATIONS										SECONDARY FOR ALL LOCATIONS										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. Jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.		SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBAPCTs EPA 8092	*Dioxin/Furan EPA 1613B	*Pesticides EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9045C/9040B	Pesticide Confirmation by EPA 6850 (10%)	TPH-GRO EPA 8015B \$	**TPH-EFH EPA 8015B Mod.	**Nitrate EPA 300.0	**Formaldehyde EPA 8015A	**H-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 8012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
		SL-017-SA8S-SB-4.0-5.0	10.21.11	1113	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-018-SA8S-SB-4.0-5.0MS	10.21.11	1023	SOIL	NONE	8-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-018-SA8S-SB-7.5-8.5	10.21.11	0930	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												MS.MSD
		DUP02-SA8S-QC-102111	10.21.11	1015	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	1-SS Sleeve			X	X																
		SL-065-SA7-SB-2.0-3.0	10.21.11	1100	SOIL	NONE	2-16 oz Jars	X	X			X	X	X	X												
		SL-014-SA8S-SB-4.0-5.0	10.21.11	1431	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-014-SA8S-SB-7.0-8.0	10.21.11	1422	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-015-SA8S-SB-4.0-5.0	10.21.11	1523	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		SL-015-SA8S-SB-9.0-10.0	10.21.11	1519	SOIL	NONE	2-16 oz Jars	X	X	X	X	X	X	X	X												
		EB-SA8S-SB-102111	10.21.11	1430	SOIL	NONE	1-1 L Amber																				
		TB-1012111	10.21.11	0800	WATER	NONE	2-40 mL Vials									X				X							HGL ASTM II WATER-DPTcrew
Relinquished by: (Signature)		Date/Time	Received for Laboratory by: (Signature)															Laboratory:									
		10/20/2011 / 1630																Lancaster Laboratories, Inc.									
Received by: (Signature)		Date/Time	Airbill No.(s)																								
			8767 9858 7592, 7630																								

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 06, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/15/2011
Group Number: 1276467
SDG: DE286
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-002-SA5DS-SB-1.8-2.8 Soil
SL-031-SA5DS-SB-4.0-5.0 Soil
SL-031-SA5DS-SB-9.0-10.0 Soil
SL-013-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6470165
6470166
6470167
6470168

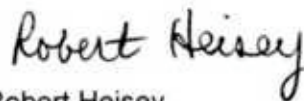
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
1 COPY TO CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 J	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.70 J	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.5 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

The recovery for the sample surrogate is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is within our statistical window of 53-142%, the data is reported.

Metals **SW-846 6010B** **mg/kg** **mg/kg** **mg/kg**

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	6.41	21.2	1
07914	Boron	7440-42-8	11.0	0.382	5.30	1
01650	Calcium	7440-70-2	4,180	2.65	21.2	1
01654	Iron	7439-89-6	24,900	2.77	21.2	1
01656	Lithium	7439-93-2	23.3	0.66	2.1	1
01657	Magnesium	7439-95-4	5,800	0.466	10.6	1
06958	Manganese	7439-96-5	331	0.0382	0.530	1
10145	Phosphorus	7723-14-0	615	0.371	10.6	1
01662	Potassium	7440-09-7	2,830	12.0	53.0	1
01667	Sodium	7440-23-5	85.6 J	6.31	106	1
07968	Strontium	7440-24-6	23.9	0.0265	0.530	1
06969	Tin	7440-31-5	2.93 J	0.339	10.6	1
06970	Titanium	7440-32-6	997	0.0753	1.06	1
10146	Zirconium	7440-67-7	8.84	0.488	5.30	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.180 J	0.0777	0.210	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.92	0.0840	0.420	2
06126	Barium	7440-39-3	87.8	0.111	0.420	2
06127	Beryllium	7440-41-7	0.529	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.214	0.0462	0.105	2
06131	Chromium	7440-47-3	34.5	0.126	0.420	2
06132	Cobalt	7440-48-4	8.13	0.0210	0.105	2
06133	Copper	7440-50-8	7.03	0.0840	0.420	2
06135	Lead	7439-92-1	6.38	0.0107	0.210	2
06138	Molybdenum	7439-98-7	0.493	0.0525	0.105	2
06139	Nickel	7440-02-0	12.2	0.105	0.420	2
06141	Selenium	7782-49-2	0.143 J	0.0609	0.420	2
06142	Silver	7440-22-4	0.0381 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.206	0.0315	0.105	2
06148	Vanadium	7440-62-2	58.3	0.0231	0.105	2
06149	Zinc	7440-66-6	47.3	0.588	3.15	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.86	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.21	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.27	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 02:32	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 01:49	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 00:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 10:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 18:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113341026001A	12/02/2011 22:43	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 18:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:03	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:03	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 10:57	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 17:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 14:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,100	6.61	21.9	1
07914	Boron	7440-42-8	17.5	0.393	5.46	1
01650	Calcium	7440-70-2	5,480	2.73	21.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	38,200	5.71	43.7	2
01656	Lithium	7439-93-2	39.9	0.68	2.2	1
01657	Magnesium	7439-95-4	9,430	0.481	10.9	1
06958	Manganese	7439-96-5	364	0.0393	0.546	1
10145	Phosphorus	7723-14-0	310	0.383	10.9	1
01662	Potassium	7440-09-7	4,740	12.4	54.6	1
01667	Sodium	7440-23-5	194	6.50	109	1
07968	Strontium	7440-24-6	36.0	0.0273	0.546	1
06969	Tin	7440-31-5	3.63 J	0.350	10.9	1
06970	Titanium	7440-32-6	1,540	0.0776	1.09	1
10146	Zirconium	7440-67-7	9.12	0.503	5.46	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.104 J	0.0817	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.80	0.0883	0.442	2
06126	Barium	7440-39-3	124	0.117	0.442	2
06127	Beryllium	7440-41-7	0.815	0.0177	0.110	2
06128	Cadmium	7440-43-9	0.159	0.0486	0.110	2
06131	Chromium	7440-47-3	33.0	0.132	0.442	2
06132	Cobalt	7440-48-4	11.2	0.0221	0.110	2
06133	Copper	7440-50-8	16.7	0.0883	0.442	2
06135	Lead	7439-92-1	8.91	0.0113	0.221	2
06138	Molybdenum	7439-98-7	0.371	0.0552	0.110	2
06139	Nickel	7440-02-0	21.9	0.110	0.442	2
06141	Selenium	7782-49-2	0.294 J	0.0640	0.442	2
06142	Silver	7440-22-4	0.0233 J	0.0157	0.110	2
06145	Thallium	7440-28-0	0.410	0.0331	0.110	2
06148	Vanadium	7440-62-2	65.5	0.0243	0.110	2
06149	Zinc	7440-66-6	75.7	0.618	3.31	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.2	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.49 J	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.29	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 02:55	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 02:23	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:17	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 11:38	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 10:57	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:45	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:04	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 18:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 14:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.43 J	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	8.5 J	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.80 J	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.6	20	1
10138	Fluoranthene	206-44-0	0.91 J	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.83 J	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.85 J	0.73	1.8	1
10138	Pyrene	129-00-0	0.74 J	0.73	1.8	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,900	6.49	21.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	20.0	0.386	5.37	1
01650	Calcium	7440-70-2	6,370	2.68	21.5	1
01654	Iron	7439-89-6	44,600	5.60	42.9	2
01656	Lithium	7439-93-2	44.7	0.67	2.1	1
01657	Magnesium	7439-95-4	10,700	0.472	10.7	1
06958	Manganese	7439-96-5	285	0.0386	0.537	1
10145	Phosphorus	7723-14-0	503	0.376	10.7	1
01662	Potassium	7440-09-7	5,150	12.1	53.7	1
01667	Sodium	7440-23-5	198	6.39	107	1
07968	Strontium	7440-24-6	36.7	0.0268	0.537	1
06969	Tin	7440-31-5	3.11 J	0.343	10.7	1
06970	Titanium	7440-32-6	1,410	0.0762	1.07	1
10146	Zirconium	7440-67-7	7.69	0.494	5.37	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0802 U	0.0802	0.217	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.35	0.0867	0.433	2
06126	Barium	7440-39-3	114	0.115	0.433	2
06127	Beryllium	7440-41-7	0.762	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.174	0.0477	0.108	2
06131	Chromium	7440-47-3	31.3	0.130	0.433	2
06132	Cobalt	7440-48-4	11.4	0.0217	0.108	2
06133	Copper	7440-50-8	19.0	0.0850	0.425	2
06135	Lead	7439-92-1	8.86	0.0111	0.217	2
06138	Molybdenum	7439-98-7	0.149	0.0542	0.108	2
06139	Nickel	7440-02-0	21.4	0.108	0.433	2
06141	Selenium	7782-49-2	0.269 J	0.0628	0.433	2
06142	Silver	7440-22-4	0.0466 J	0.0154	0.108	2
06145	Thallium	7440-28-0	0.407	0.0325	0.108	2
06148	Vanadium	7440-62-2	59.4	0.0238	0.108	2
06149	Zinc	7440-66-6	82.6	0.607	3.25	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.89	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.36 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.32	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 03:19	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 02:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 11:42	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:47	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:51	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:06	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 19:12	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 14:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,000	6.40	21.2	1
07914	Boron	7440-42-8	10.1	0.381	5.29	1
01650	Calcium	7440-70-2	40,700	2.64	21.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,500	2.76	21.2	1
01656	Lithium	7439-93-2	26.0	0.66	2.1	1
01657	Magnesium	7439-95-4	5,360	0.465	10.6	1
06958	Manganese	7439-96-5	335	0.0381	0.529	1
10145	Phosphorus	7723-14-0	443	0.370	10.6	1
01662	Potassium	7440-09-7	2,560	12.0	52.9	1
01667	Sodium	7440-23-5	79.9 J	6.29	106	1
07968	Strontium	7440-24-6	38.5	0.0264	0.529	1
06969	Tin	7440-31-5	2.58 J	0.338	10.6	1
06970	Titanium	7440-32-6	918	0.0751	1.06	1
10146	Zirconium	7440-67-7	3.77 J	0.486	5.29	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0798 J	0.0783	0.212	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.25	0.0846	0.423	2
06126	Barium	7440-39-3	97.4	0.112	0.423	2
06127	Beryllium	7440-41-7	0.658	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.235	0.0465	0.106	2
06131	Chromium	7440-47-3	24.0	0.127	0.423	2
06132	Cobalt	7440-48-4	9.23	0.0212	0.106	2
06133	Copper	7440-50-8	11.3	0.0846	0.423	2
06135	Lead	7439-92-1	7.62	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.475	0.0529	0.106	2
06139	Nickel	7440-02-0	18.0	0.106	0.423	2
06141	Selenium	7782-49-2	0.182 J	0.0613	0.423	2
06142	Silver	7440-22-4	0.0203 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.295	0.0317	0.106	2
06148	Vanadium	7440-62-2	44.4	0.0233	0.106	2
06149	Zinc	7440-66-6	62.3	0.592	3.17	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.43 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.82	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 03:43	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 03:31	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/28/2011 16:51	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:30	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:07	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 19:36	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 14:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11320SLJ026 Sample number(s): 6470165-6470168									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	90		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	111		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	97		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	93		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	103		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	112		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	103		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	100		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	100		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	97		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	105		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	71		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	96		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	90		72-119		
Batch number: 11320SLK026 Sample number(s): 6470165-6470168									
Aniline	170 U	170.	500	ug/kg	72		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	94		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	96		73-114		
Carbazole	17 U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	51		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	88		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	86		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	73		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	94		74-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Dibenzofuran	17 U	17.	170	ug/kg	92		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	87		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	86		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	84		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	48		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	96		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	99		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	101		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	91		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	85		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	94		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	97		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	103		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	95		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	90		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	104		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	88		61-109		
Isophorone	17 U	17.	170	ug/kg	93		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	98		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	86		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	92		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	87		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	66		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	90		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	90		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	81		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	84		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	99		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	81		51-117		
Phenol	17 U	17.	170	ug/kg	88		58-112		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	88		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	90		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	93		78-111		
Batch number: 113230004A	Sample number(s): 6470165-6470168								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113211026003A	Sample number(s): 6470165-6470168								
Antimony	0.0733 U	0.0733	0.198	mg/kg	62		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	95		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	95		84-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	96		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	103		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	96		85-114		
Lead	0.0101 U	0.0101	0.198	mg/kg	97		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	96		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	97		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	99		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	98		76-110		
Zinc	0.985 J	0.554	2.97	mg/kg	93		82-110		
Batch number: 113211026003B	Sample number(s): 6470165-6470168								
Selenium	0.0574 U	0.0574	0.396	mg/kg	97		79-110		
Batch number: 113211026003C	Sample number(s): 6470165-6470168								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	94		80-110		
Batch number: 113211026003D	Sample number(s): 6470165-6470168								
Barium	0.105 U	0.105	0.396	mg/kg	93		83-110		
Batch number: 113215708005	Sample number(s): 6470165-6470168								
Aluminum	8.93 J	5.82	19.2	mg/kg	76		40-127		
Boron	0.644 J	0.346	4.81	mg/kg	91		83-110		
Calcium	9.39 J	2.40	19.2	mg/kg	91		81-110		
Iron	3.43 J	2.51	19.2	mg/kg	81		47-129		
Lithium	0.60 U	0.60	1.9	mg/kg	102		80-120		
Magnesium	0.949 J	0.423	9.62	mg/kg	82		63-116		
Manganese	0.0365 J	0.0346	0.481	mg/kg	95		85-116		
Phosphorus	1.86 J	0.337	9.62	mg/kg	102		80-120		
Potassium	10.9 U	10.9	48.1	mg/kg	93		71-110		
Sodium	5.72 U	5.72	96.2	mg/kg	93		76-110		
Strontium	0.0596 J	0.0240	0.481	mg/kg	92		84-110		
Tin	1.53 J	0.308	9.62	mg/kg	90		86-120		
Titanium	0.0740 J	0.0683	0.962	mg/kg	84		80-120		
Zirconium	0.442 U	0.442	4.81	mg/kg	106		80-120		
Batch number: 113215711003	Sample number(s): 6470165-6470168								
Mercury	0.0067 U	0.0067	0.0956	mg/kg	89		83-119		
Batch number: 113341026001A	Sample number(s): 6470165-6470168								
Copper	0.0777 U	0.0777	0.388	mg/kg	100		81-110		
Batch number: 11320621201A	Sample number(s): 6470165-6470168								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	92		90-110		
Batch number: 11320621202A	Sample number(s): 6470165-6470168								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	95		85-115		
Batch number: 11332243201A	Sample number(s): 6470165-6470168								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11332039401A	Sample number(s): 6470165-6470168								
17a pH by 9045C					100		95-105		
Batch number: 11325162402B	Sample number(s): 6470165-6470168								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11320SLJ026 Sample number(s): 6470165-6470168 UNSPK: P465418									
Acenaphthene	89	92	63-105	3	30				
Acenaphthylene	89	93	67-114	4	30				
Anthracene	94	94	73-115	1	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	77	97	58-142	23	30				
Benzo(b)fluoranthene	78	103	54-163	28	30				
Benzo(g,h,i)perylene	61	88	33-141	35*	30				
Benzo(k)fluoranthene	81	90	57-153	10	30				
Butylbenzylphthalate	129	111	57-173	14	30				
Di-n-butylphthalate	146	121	65-148	19	30				
Chrysene	95	92	67-123	2	30				
Dibenz(a,h)anthracene	73	96	22-133	27	30				
Diethylphthalate	128	120	70-136	6	30				
Dimethylphthalate	106	110	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	151	136	39-167	11	30				
Fluoranthene	112	101	51-149	9	30				
Fluorene	97	98	66-122	2	30				
Indeno(1,2,3-cd)pyrene	70	94	21-143	30	30				
1-Methylnaphthalene	86	85	72-123	2	30				
2-Methylnaphthalene	86	85	64-103	1	30				
Naphthalene	91	88	61-102	3	30				
N-Nitrosodimethylamine	102	86	48-113	18	30				
Di-n-octylphthalate	94	138	40-192	37*	30				
Phenanthrene	95	92	62-122	4	30				
Pyrene	89	85	51-131	4	30				
Batch number: 11320SLK026 Sample number(s): 6470165-6470168 UNSPK: P465418									
Aniline	78	62	18-116	22	30				
Benaidine	0*	18*	35-141	200*	30				
Benzoic acid	102	84	10-173	20	30				
Benzyl alcohol	96	83	67-115	14	30				
4-Bromophenyl-phenylether	107	89	67-129	18	30				
Carbazole	98	83	64-120	16	30				
4-Chloro-3-methylphenol	102	88	62-122	15	30				
4-Chloroaniline	55	48	13-107	12	30				
bis(2-Chloroethoxy)methane	98	83	75-104	16	30				
bis(2-Chloroethyl)ether	95	80	60-116	17	30				
bis(2-Chloroisopropyl)ether	93	78	55-142	18	30				
2-Chloronaphthalene	79	67	50-141	16	30				
2-Chlorophenol	101	86	73-121	16	30				
4-Chlorophenyl-phenylether	98	86	80-109	13	30				
Dibenzofuran	98	85	71-112	15	30				
1,2-Dichlorobenzene	94	80	66-108	16	30				
1,3-Dichlorobenzene	92	78	63-109	16	30				
1,4-Dichlorobenzene	90	77	58-108	16	30				
3,3'-Dichlorobenzidine	61	49	28-109	22	30				
2,4-Dichlorophenol	103	89	66-123	14	30				
2,4-Dimethylphenol	105	89	68-118	17	30				
3,5-Dimethylphenol	103	88	71-127	16	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
4,6-Dinitro-2-methylphenol	97	82	11-126	16	30				
2,4-Dinitrophenol	80	73	20-143	10	30				
2,4-Dinitrotoluene	99	87	56-129	13	30				
2,6-Dinitrotoluene	103	89	69-123	14	30				
1,2-Diphenylhydrazine	113	95	71-129	18	30				
Hexachlorobenzene	107	87	77-114	20	30				
Hexachlorobutadiene	97	83	62-120	16	30				
Hexachlorocyclopentadiene	131	92	10-153	35*	30				
Hexachloroethane	93	76	57-109	19	30				
Isophorone	98	83	73-102	16	30				
2-Methylphenol	105	89	75-111	17	30				
4-Methylphenol	94	79	59-123	17	30				
2-Nitroaniline	99	86	67-125	14	30				
3-Nitroaniline	88	80	59-122	10	30				
4-Nitroaniline	79	63	41-109	23	30				
Nitrobenzene	95	81	57-125	16	30				
2-Nitrophenol	98	84	56-127	15	30				
4-Nitrophenol	89	76	37-129	17	30				
N-Nitroso-di-n-propylamine	90	75	60-116	18	30				
N-Nitrosodiphenylamine	110	90	71-122	20	30				
Pentachlorophenol	73	76	28-127	4	30				
Phenol	94	79	58-126	17	30				
1,2,4-Trichlorobenzene	96	79	72-115	19	30				
2,4,5-Trichlorophenol	100	86	58-129	15	30				
2,4,6-Trichlorophenol	103	90	56-134	14	30				

Batch number: 113230004A

Sample number(s): 6470165-6470168 UNSPK: 6470165

PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				

Batch number: 113211026003A

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165

Antimony	16*	13*	75-125	9	20	0.168 J	0.108 J	44* (1)	20
Arsenic	119	150*	75-125	10	20	4.59	4.39	5	20
Beryllium	88	108	75-125	14	20	0.494	0.492	0 (1)	20
Cadmium	111	114	75-125	5	20	0.200	0.145	32* (1)	20
Chromium	112	141*	75-125	7	20	32.2	31.6	2	20
Cobalt	106	116	75-125	10	20	7.60	6.23	20	20
Lead	118	134*	75-125	6	20	5.96	5.42	9	20
Nickel	125	140*	75-125	8	20	11.4	11.2	2	20
Silver	107	106	75-125	2	20	0.0356 J	0.0244 J	38* (1)	20
Thallium	111	103	75-125	3	20	0.192	0.170	12 (1)	20
Vanadium	142 (2)	183 (2)	75-125	6	20	54.5	54.1	1	20
Zinc	110 (2)	169 (2)	75-125	11	20	44.2	41.9	5	20

Batch number: 113211026003B

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165

Selenium	92	105	75-125	15	20	0.134 J	0.174 J	26* (1)	20

Batch number: 113211026003C

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165

Molybdenum	102	105	75-125	6	20	0.461	0.438	5 (1)	20

Batch number: 113211026003D

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165

Barium	62 (2)	141 (2)	75-125	9	20	82.0	63.9	25*	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113215708005	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
Aluminum	1462 (2)	1339 (2)	75-125	1	20	16,800	17,300	3	20
Boron	90	91	84-115	1	20	10.2	10.3	0 (1)	20
Calcium	215 (2)	238 (2)	75-125	2	20	3,910	4,000	2	20
Iron	135 (2)	269 (2)	75-125	1	20	23,200	23,500	1	20
Lithium	98	97	82-114	2	20	21.8	21.5	1	20
Magnesium	36 (2)	53 (2)	75-125	1	20	5,420	5,190	4	20
Manganese	148 (2)	118 (2)	75-125	4	20	309	329	6	20
Phosphorus	44 (2)	75 (2)	75-125	5	20	575	544	5	20
Potassium	103	126*	75-125	6	20	2,640	2,500	5	20
Sodium	97	95	75-125	1	20	80.0	J 82.5	J 3 (1)	20
Strontium	98	98	75-115	0	20	22.3	24.4	9	20
Tin	85	85	80-110	0	20	2.74	J 2.78	J 2 (1)	20
Titanium	374 (2)	331 (2)	75-125	3	20	931	974	5	20
Zirconium	94	92	81-110	2	20	8.25	10.1	20 (1)	20
Batch number: 113215711003	Sample number(s): 6470165-6470168 UNSPK: P473891 BKG: P473891								
Mercury	97	102	65-135	5	20	0.0085 J	0.0082 J	4 (1)	20
Batch number: 113341026001A	Sample number(s): 6470165-6470168 UNSPK: 6470168 BKG: 6470168								
Copper	106	110	75-125	2	20	10.5	10.9	4	20
Batch number: 11320621201A	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
11a Anions by 300.0 - Fluoride	63*		80-120			1.1	1.6	39* (1)	20
Batch number: 11320621202A	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
7a Perchlorate EPA 314.0	93		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11332243201A	Sample number(s): 6470165-6470168 UNSPK: P475869 BKG: P475869								
3a Cr VI by EPA 7199	99		75-125			1.3	0.43 J	100* (1)	20
Batch number: 11332039401A	Sample number(s): 6470165-6470168 BKG: P473895								
17a pH by 9045C						8.71	8.72	0	3
Batch number: 11325162402B	Sample number(s): 6470165-6470168 BKG: 6470165								
Moisture Content by 160.3						6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11320SLJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6470165	136*	96	94
6470166	133*	91	93
6470167	131*	93	94

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Surrogate Quality Control

6470168	125	90	89
Blank	113	86	92
LCS	119	88	90
MS	126	84	80
MSD	123	86	84

Limits: 40-130 45-130 45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11320SLK026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6470165	96	96	99	90	97	92
6470166	92	94	102	86	92	89
6470167	94	97	100	88	94	91
6470168	101	101	94	90	97	90
Blank	88	93	92	86	91	89
LCS	93	95	95	87	91	83
MS	99	101	100	93	98	91
MSD	87	89	92	81	88	80

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6470165	113	126*
6470166	96	108
6470167	108	116
6470168	95	107
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112

Limits: 53-139 45-120

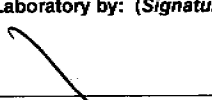
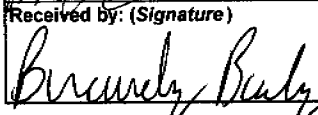
*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

13013 1276467 6470165-68

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraHf under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers										
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-SS Sleeve			X	X						
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-SS Sleeve			X	X						
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)											Laboratory:	
	11/14/2011 / 1630													Lancaster Laboratories, Inc.	
Received by: (Signature)	Date/Time		Airbill No.(s)												
	11-15-11 915		8767 9857 4950												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 30, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/15/2011
Group Number: 1276469
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-002-SA5DS-SB-1.8-2.8 Soil
SL-031-SA5DS-SB-4.0-5.0 Soil
SL-031-SA5DS-SB-9.0-10.0 Soil
SL-013-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6470172
6470173
6470174
6470175

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0477 JQ	0.0424	1.04	1
11031	12378-PeCDD	40321-76-4	0.0570 J	0.0355	5.21	1
11031	123478-HxCDD	39227-28-6	0.0257 JBQ	0.0231	5.21	1
11031	123678-HxCDD	57653-85-7	0.204 JBQ	0.0241	5.21	1
11031	123789-HxCDD	19408-74-3	0.410 JB	0.0241	5.21	1
11031	1234678-HpCDD	35822-46-9	0.901 JB	0.0237	5.21	1
11031	OCDD	3268-87-9	4.74 JB	0.0219	10.4	1
11031	2378-TCDF	51207-31-9	0.0565 J	0.0426	1.04	1
11031	12378-PeCDF	57117-41-6	0.0775 JB	0.0198	5.21	1
11031	23478-PeCDF	57117-31-4	0.0966 JBQ	0.0197	5.21	1
11031	123478-HxCDF	70648-26-9	0.0173 U	0.0173	5.21	1
11031	123678-HxCDF	57117-44-9	0.0626 JB	0.0147	5.21	1
11031	123789-HxCDF	72918-21-9	0.354 JB	0.0188	5.21	1
11031	234678-HxCDF	60851-34-5	0.0647 JBQ	0.0141	5.21	1
11031	1234678-HpCDF	67562-39-4	0.164 JBQ	0.0101	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0264 JBQ	0.0143	5.21	1
11031	OCDF	39001-02-0	0.323 JB	0.0266	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0021 SDG#: DX155-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 17:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0469 U	0.0469	1.07	1
11031	12378-PeCDD	40321-76-4	0.101 JQ	0.0339	5.36	1
11031	123478-HxCDD	39227-28-6	0.0269 U	0.0269	5.36	1
11031	123678-HxCDD	57653-85-7	0.250 JBQ	0.0280	5.36	1
11031	123789-HxCDD	19408-74-3	0.174 JBQ	0.0279	5.36	1
11031	1234678-HpCDD	35822-46-9	0.865 JB	0.0281	5.36	1
11031	OCDD	3268-87-9	2.31 JB	0.0202	10.7	1
11031	2378-TCDF	51207-31-9	0.0333 U	0.0333	1.07	1
11031	12378-PeCDF	57117-41-6	0.0297 JBQ	0.0172	5.36	1
11031	23478-PeCDF	57117-31-4	0.0469 JBQ	0.0165	5.36	1
11031	123478-HxCDF	70648-26-9	0.0385 JBQ	0.0155	5.36	1
11031	123678-HxCDF	57117-44-9	0.0170 JBQ	0.0136	5.36	1
11031	123789-HxCDF	72918-21-9	0.0673 JBQ	0.0165	5.36	1
11031	234678-HxCDF	60851-34-5	0.0427 JBQ	0.0128	5.36	1
11031	1234678-HpCDF	67562-39-4	0.129 JB	0.0107	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0387 JBQ	0.0164	5.36	1
11031	OCDF	39001-02-0	0.179 JB	0.0281	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 18:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0449 U	0.0449	1.11	1
11031	12378-PeCDD	40321-76-4	0.0348 U	0.0348	5.57	1
11031	123478-HxCDD	39227-28-6	0.0458 JB	0.0257	5.57	1
11031	123678-HxCDD	57653-85-7	0.0913 JBQ	0.0262	5.57	1
11031	123789-HxCDD	19408-74-3	0.0672 JB	0.0262	5.57	1
11031	1234678-HpCDD	35822-46-9	0.450 JBQ	0.0249	5.57	1
11031	OCDD	3268-87-9	2.45 JB	0.0235	11.1	1
11031	2378-TCDF	51207-31-9	0.0330 U	0.0330	1.11	1
11031	12378-PeCDF	57117-41-6	0.0519 JB	0.0170	5.57	1
11031	23478-PeCDF	57117-31-4	0.0422 JB	0.0164	5.57	1
11031	123478-HxCDF	70648-26-9	0.0401 JBQ	0.0143	5.57	1
11031	123678-HxCDF	57117-44-9	0.0350 JBQ	0.0127	5.57	1
11031	123789-HxCDF	72918-21-9	0.0350 JBQ	0.0148	5.57	1
11031	234678-HxCDF	60851-34-5	0.0548 JB	0.0117	5.57	1
11031	1234678-HpCDF	67562-39-4	0.113 JBQ	0.0115	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0445 JBQ	0.0173	5.57	1
11031	OCDF	39001-02-0	0.229 JB	0.0324	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0444 U	0.0444	1.07	1
11031	12378-PeCDD	40321-76-4	0.0309 U	0.0309	5.35	1
11031	123478-HxCDD	39227-28-6	0.0213 U	0.0213	5.35	1
11031	123678-HxCDD	57653-85-7	0.0431 JBQ	0.0215	5.35	1
11031	123789-HxCDD	19408-74-3	0.0383 JB	0.0211	5.35	1
11031	1234678-HpCDD	35822-46-9	0.375 JB	0.0294	5.35	1
11031	OCDD	3268-87-9	1.47 JB	0.0227	10.7	1
11031	2378-TCDF	51207-31-9	0.0399 U	0.0399	1.07	1
11031	12378-PeCDF	57117-41-6	0.0176 U	0.0176	5.35	1
11031	23478-PeCDF	57117-31-4	0.0173 U	0.0173	5.35	1
11031	123478-HxCDF	70648-26-9	0.0533 JBQ	0.0138	5.35	1
11031	123678-HxCDF	57117-44-9	0.0159 JBQ	0.0128	5.35	1
11031	123789-HxCDF	72918-21-9	0.0524 JBQ	0.0148	5.35	1
11031	234678-HxCDF	60851-34-5	0.0400 JBQ	0.0117	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0864 JBQ	0.0100	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0659 JBQ	0.0150	5.35	1
11031	OCDF	39001-02-0	0.223 JBQ	0.0379	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0134 SDG#: DX155-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6470172-6470175								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6470172	65	75	60	68	73	65
6470173	72	80	68	78	83	75
6470174	70	81	64	74	81	74
6470175	69	78	66	73	79	72
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6470172	80	67	71	77	77	75
6470173	94	75	80	84	88	87
6470174	92	74	78	84	87	86
6470175	86	72	70	79	82	83
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6470172	73	77	86	65	80	
6470173	84	90	98	69	87	
6470174	85	89	97	69	87	
6470175	81	84	90	69	83	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1276469 6470172-75

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 60106/60208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers										
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-SS Sleeve			X	X						
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-SS Sleeve			X	X						
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:	
		11/14/2011 / 1630												Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)											
		11-15-11 915		8767 9857 4950											

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/17/2011

Group Number: 1277028

SDG: DE287

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-007-SA8S-SB-4.0-5.0 Soil
SL-005-SA8S-SB-3.5-4.5 Soil
SL-009-SA8S-SB-4.0-5.0 Soil
SL-009-SA8S-SB-7.0-8.0 Soil
SL-024-SA8S-SB-4.0-5.0 Soil
SL-024-SA8S-SB-7.0-8.0 SoilLancaster Labs (LLI) #6473891
6473892
6473893
6473894
6473895
6473896

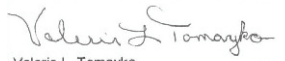
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TO
1 COPY TOCDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,200	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1 J	6.8	20	1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9	1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,600	6.78	22.4	1
07914	Boron	7440-42-8	15.3	0.404	5.61	1
01650	Calcium	7440-70-2	172,000	14.0	112	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,700	2.93	22.4	1
01656	Lithium	7439-93-2	16.1	0.70	2.2	1
01657	Magnesium	7439-95-4	5,530	0.493	11.2	1
06958	Manganese	7439-96-5	382	0.0404	0.561	1
10145	Phosphorus	7723-14-0	282	0.392	11.2	1
01662	Potassium	7440-09-7	2,580	12.7	56.1	1
01667	Sodium	7440-23-5	242	6.67	112	1
07968	Strontium	7440-24-6	219	0.0280	0.561	1
06969	Tin	7440-31-5	2.48 J	0.359	11.2	1
06970	Titanium	7440-32-6	543	0.0796	1.12	1
10146	Zirconium	7440-67-7	3.96 J	0.516	5.61	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.103 J	0.0830	0.224	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.29	0.0897	0.448	2
06126	Barium	7440-39-3	84.3	0.119	0.448	2
06127	Beryllium	7440-41-7	0.625	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.456	0.0493	0.112	2
06131	Chromium	7440-47-3	30.7	0.135	0.448	2
06132	Cobalt	7440-48-4	9.54	0.0224	0.112	2
06133	Copper	7440-50-8	15.1	0.0888	0.444	2
06135	Lead	7439-92-1	10.8	0.0114	0.224	2
06138	Molybdenum	7439-98-7	0.317	0.0561	0.112	2
06139	Nickel	7440-02-0	23.5	0.112	0.448	2
06141	Selenium	7782-49-2	0.201 J	0.0650	0.448	2
06142	Silver	7440-22-4	0.0159 U	0.0159	0.112	2
06145	Thallium	7440-28-0	0.244	0.0336	0.112	2
06148	Vanadium	7440-62-2	53.0	0.0247	0.112	2
06149	Zinc	7440-66-6	54.5	0.628	3.36	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0098 J	0.0080	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.1	0.92	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.70	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 09:28	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 12:35	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 02:12	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:45	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:55	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:53	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:08	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 05:43	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 17:30	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:00	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,700	6.53	21.6	1
07914	Boron	7440-42-8	17.6	0.389	5.40	1
01650	Calcium	7440-70-2	161,000	13.5	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	18,800	2.82	21.6	1
01656	Lithium	7439-93-2	15.0	0.67	2.2	1
01657	Magnesium	7439-95-4	6,040	0.475	10.8	1
06958	Manganese	7439-96-5	305	0.0389	0.540	1
10145	Phosphorus	7723-14-0	349	0.378	10.8	1
01662	Potassium	7440-09-7	2,780	12.2	54.0	1
01667	Sodium	7440-23-5	1,030	6.42	108	1
07968	Strontium	7440-24-6	256	0.0270	0.540	1
06969	Tin	7440-31-5	2.21 J	0.345	10.8	1
06970	Titanium	7440-32-6	620	0.0766	1.08	1
10146	Zirconium	7440-67-7	4.75 J	0.496	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0854 J	0.0822	0.222	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.98	0.0889	0.444	2
06126	Barium	7440-39-3	114	0.118	0.444	2
06127	Beryllium	7440-41-7	0.568	0.0178	0.111	2
06128	Cadmium	7440-43-9	0.240	0.0489	0.111	2
06131	Chromium	7440-47-3	28.5	0.133	0.444	2
06132	Cobalt	7440-48-4	8.89	0.0222	0.111	2
06133	Copper	7440-50-8	14.9	0.0880	0.440	2
06135	Lead	7439-92-1	9.50	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.296	0.0556	0.111	2
06139	Nickel	7440-02-0	17.5	0.111	0.444	2
06141	Selenium	7782-49-2	0.181 J	0.0645	0.444	2
06142	Silver	7440-22-4	0.0158 U	0.0158	0.111	2
06145	Thallium	7440-28-0	0.220	0.0333	0.111	2
06148	Vanadium	7440-62-2	49.4	0.0244	0.111	2
06149	Zinc	7440-66-6	48.1	0.622	3.33	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0188 J	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	8.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	9.23	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 10:41	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 15:28	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 02:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:49	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:55	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 19:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 06:25	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 18:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,800	6.64	22.0	1
07914	Boron	7440-42-8	13.5	0.395	5.49	1
01650	Calcium	7440-70-2	79,200	5.49	43.9	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,000	2.86	22.0	1
01656	Lithium	7439-93-2	31.1	0.68	2.2	1
01657	Magnesium	7439-95-4	7,210	0.483	11.0	1
06958	Manganese	7439-96-5	271	0.0395	0.549	1
10145	Phosphorus	7723-14-0	461	0.384	11.0	1
01662	Potassium	7440-09-7	3,580	12.4	54.9	1
01667	Sodium	7440-23-5	180	6.53	110	1
07968	Strontium	7440-24-6	100	0.0274	0.549	1
06969	Tin	7440-31-5	3.04 J	0.351	11.0	1
06970	Titanium	7440-32-6	631	0.0779	1.10	1
10146	Zirconium	7440-67-7	6.59	0.505	5.49	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0836 U	0.0836	0.226	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.31	0.0904	0.452	2
06126	Barium	7440-39-3	67.4	0.120	0.452	2
06127	Beryllium	7440-41-7	0.634	0.0181	0.113	2
06128	Cadmium	7440-43-9	0.355	0.0497	0.113	2
06131	Chromium	7440-47-3	30.0	0.136	0.452	2
06132	Cobalt	7440-48-4	9.27	0.0226	0.113	2
06133	Copper	7440-50-8	17.0	0.0904	0.452	2
06135	Lead	7439-92-1	9.07	0.0115	0.226	2
06138	Molybdenum	7439-98-7	0.235	0.0565	0.113	2
06139	Nickel	7440-02-0	17.3	0.113	0.452	2
06141	Selenium	7782-49-2	0.250 J	0.0656	0.452	2
06142	Silver	7440-22-4	0.0229 J	0.0160	0.113	2
06145	Thallium	7440-28-0	0.293	0.0339	0.113	2
06148	Vanadium	7440-62-2	41.8	0.0249	0.113	2
06149	Zinc	7440-66-6	47.1	0.633	3.39	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.65	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011	11:05	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011	16:03	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011	11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011	18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011	02:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011	00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/28/2011	17:03	John P Hook	2
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011	11:15	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011	15:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:57	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 06:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 19:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	10,700	6.52	21.5	1
07914	Boron	7440-42-8	10.2	0.388	5.39	1
01650	Calcium	7440-70-2	177,000	13.5	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	14,500	2.81	21.5	1
01656	Lithium	7439-93-2	15.7	0.67	2.2	1
01657	Magnesium	7439-95-4	4,280	0.474	10.8	1
06958	Manganese	7439-96-5	516	0.0388	0.539	1
10145	Phosphorus	7723-14-0	346	0.377	10.8	1
01662	Potassium	7440-09-7	2,270	12.2	53.9	1
01667	Sodium	7440-23-5	155	6.41	108	1
07968	Strontium	7440-24-6	166	0.0269	0.539	1
06969	Tin	7440-31-5	2.38 J	0.345	10.8	1
06970	Titanium	7440-32-6	374	0.0765	1.08	1
10146	Zirconium	7440-67-7	3.53 J	0.496	5.39	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0774 U	0.0774	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.06	0.0837	0.419	2
06126	Barium	7440-39-3	61.2	0.111	0.419	2
06127	Beryllium	7440-41-7	0.586	0.0167	0.105	2
06128	Cadmium	7440-43-9	0.322	0.0460	0.105	2
06131	Chromium	7440-47-3	26.6	0.126	0.419	2
06132	Cobalt	7440-48-4	8.41	0.0209	0.105	2
06133	Copper	7440-50-8	9.74	0.0862	0.431	2
06135	Lead	7439-92-1	8.28	0.0107	0.209	2
06138	Molybdenum	7439-98-7	0.246	0.0523	0.105	2
06139	Nickel	7440-02-0	15.3	0.105	0.419	2
06141	Selenium	7782-49-2	0.185 J	0.0607	0.419	2
06142	Silver	7440-22-4	0.0191 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.254	0.0314	0.105	2
06148	Vanadium	7440-62-2	37.1	0.0230	0.105	2
06149	Zinc	7440-66-6	42.3	0.586	3.14	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.75	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 11:29	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 20:07	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:57	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:26	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:59	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:22	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 19:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:21	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2	J 6.6	20	1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.8	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.8	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20	1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.8	1
10138	Pyrene	129-00-0	0.74	U 0.74	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,300	6.60	21.8	1
07914	Boron	7440-42-8	11.8	0.393	5.45	1
01650	Calcium	7440-70-2	109,000	13.6	109	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	20,800	2.85	21.8	1
01656	Lithium	7439-93-2	21.5	0.68	2.2	1
01657	Magnesium	7439-95-4	5,150	0.480	10.9	1
06958	Manganese	7439-96-5	296	0.0393	0.545	1
10145	Phosphorus	7723-14-0	397	0.382	10.9	1
01662	Potassium	7440-09-7	2,800	12.3	54.5	1
01667	Sodium	7440-23-5	123	6.49	109	1
07968	Strontium	7440-24-6	128	0.0273	0.545	1
06969	Tin	7440-31-5	2.77 J	0.349	10.9	1
06970	Titanium	7440-32-6	518	0.0775	1.09	1
10146	Zirconium	7440-67-7	4.81 J	0.502	5.45	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0831 U	0.0831	0.225	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.01	0.0899	0.449	2
06126	Barium	7440-39-3	67.0	0.119	0.449	2
06127	Beryllium	7440-41-7	0.629	0.0180	0.112	2
06128	Cadmium	7440-43-9	0.205	0.0494	0.112	2
06131	Chromium	7440-47-3	31.7	0.135	0.449	2
06132	Cobalt	7440-48-4	7.51	0.0225	0.112	2
06133	Copper	7440-50-8	10.1	0.0873	0.436	2
06135	Lead	7439-92-1	6.58	0.0115	0.225	2
06138	Molybdenum	7439-98-7	0.214	0.0562	0.112	2
06139	Nickel	7440-02-0	14.3	0.112	0.449	2
06141	Selenium	7782-49-2	0.192 J	0.0652	0.449	2
06142	Silver	7440-22-4	0.0160 U	0.0160	0.112	2
06145	Thallium	7440-28-0	0.267	0.0337	0.112	2
06148	Vanadium	7440-62-2	44.8	0.0247	0.112	2
06149	Zinc	7440-66-6	44.2	0.629	3.37	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.47 J	0.23	1.2	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.71	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 11:53	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 20:41	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 12:00	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:30	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 23:01	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:20	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 20:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:34	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,700	6.66	22.0	1
07914	Boron	7440-42-8	13.1	0.397	5.51	1
01650	Calcium	7440-70-2	92,400	5.51	44.1	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	30,500	5.75	44.1	2
01656	Lithium	7439-93-2	30.0	0.68	2.2	1
01657	Magnesium	7439-95-4	6,500	0.485	11.0	1
06958	Manganese	7439-96-5	246	0.0397	0.551	1
10145	Phosphorus	7723-14-0	462	0.385	11.0	1
01662	Potassium	7440-09-7	3,350	12.4	55.1	1
01667	Sodium	7440-23-5	123	6.55	110	1
07968	Strontium	7440-24-6	122	0.0275	0.551	1
06969	Tin	7440-31-5	2.93 J	0.352	11.0	1
06970	Titanium	7440-32-6	624	0.0782	1.10	1
10146	Zirconium	7440-67-7	5.54	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0969 J	0.0807	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.53	0.0873	0.436	2
06126	Barium	7440-39-3	94.0	0.116	0.436	2
06127	Beryllium	7440-41-7	0.844	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.336	0.0480	0.109	2
06131	Chromium	7440-47-3	40.5	0.131	0.436	2
06132	Cobalt	7440-48-4	15.6	0.0218	0.109	2
06133	Copper	7440-50-8	13.1	0.0890	0.445	2
06135	Lead	7439-92-1	10.7	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.352	0.0545	0.109	2
06139	Nickel	7440-02-0	23.4	0.109	0.436	2
06141	Selenium	7782-49-2	0.217 J	0.0633	0.436	2
06142	Silver	7440-22-4	0.0176 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.409	0.0327	0.109	2
06148	Vanadium	7440-62-2	65.1	0.0240	0.109	2
06149	Zinc	7440-66-6	67.1	0.611	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0106 J	0.0077	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.43 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.33	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 12:17	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 21:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:45	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 12:11	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 12:11	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:34	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 23:03	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 20:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11326SLE026	Sample number(s): 6473891-6473896								
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	65		49-98		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nitrobenzene	17	U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	90		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170		170.	500	ug/kg	101		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026 Sample number(s): 6473891-6473896										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	105		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	95		72-119		
Batch number: 113230004A Sample number(s): 6473891-6473896										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 113211026003A Sample number(s): 6473891-6473896										
Antimony	0.0733	U	0.0733	0.198	mg/kg	62		40-227		
Arsenic	0.0792	U	0.0792	0.396	mg/kg	95		83-111		
Beryllium	0.0158	U	0.0158	0.0990	mg/kg	95		84-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	96		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	103		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	96		85-114		
Lead	0.0101 U	0.0101	0.198	mg/kg	97		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	96		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	97		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	99		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	98		76-110		
Zinc	0.985 J	0.554	2.97	mg/kg	93		82-110		
Batch number: 113211026003B	Sample number(s): 6473891-6473896								
Selenium	0.0574 U	0.0574	0.396	mg/kg	97		79-110		
Batch number: 113211026003C	Sample number(s): 6473891-6473896								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	94		80-110		
Batch number: 113211026003D	Sample number(s): 6473891-6473896								
Barium	0.105 U	0.105	0.396	mg/kg	93		83-110		
Batch number: 113215708005	Sample number(s): 6473891-6473896								
Aluminum	8.93 J	5.82	19.2	mg/kg	76		40-127		
Boron	0.644 J	0.346	4.81	mg/kg	91		83-110		
Calcium	9.39 J	2.40	19.2	mg/kg	91		81-110		
Iron	3.43 J	2.51	19.2	mg/kg	81		47-129		
Lithium	0.60 U	0.60	1.9	mg/kg	102		80-120		
Magnesium	0.949 J	0.423	9.62	mg/kg	82		63-116		
Manganese	0.0365 J	0.0346	0.481	mg/kg	95		85-116		
Phosphorus	1.86 J	0.337	9.62	mg/kg	102		80-120		
Potassium	10.9 U	10.9	48.1	mg/kg	93		71-110		
Sodium	5.72 U	5.72	96.2	mg/kg	93		76-110		
Strontium	0.0596 J	0.0240	0.481	mg/kg	92		84-110		
Tin	1.53 J	0.308	9.62	mg/kg	90		86-120		
Titanium	0.0740 J	0.0683	0.962	mg/kg	84		80-120		
Zirconium	0.442 U	0.442	4.81	mg/kg	106		80-120		
Batch number: 113215711003	Sample number(s): 6473891-6473896								
Mercury	0.0067 U	0.0067	0.0956	mg/kg	89		83-119		
Batch number: 113341026001A	Sample number(s): 6473891-6473896								
Copper	0.0777 U	0.0777	0.388	mg/kg	100		81-110		
Batch number: 11321373201A	Sample number(s): 6473891-6473896								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	100		85-115		
Batch number: 11321373202A	Sample number(s): 6473891-6473896								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	94		90-110		
Batch number: 11332243201A	Sample number(s): 6473891-6473896								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11332039401A	Sample number(s): 6473891-6473895								
17a pH by 9045C					100		95-105		
Batch number: 11332039401B	Sample number(s): 6473896								
17a pH by 9045C					100		95-105		
Batch number: 11325162402B	Sample number(s): 6473891-6473896								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11326SLE026 Sample number(s): 6473891-6473896 UNSPK: 6473891									
Aniline	55	67	18-116	19	30				
Benizidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				
Batch number: 11326SLG026 Sample number(s): 6473891-6473896 UNSPK: 6473891									
Acenaphthene	94	91	63-105	3	30				
Acenaphthylene	97	88	67-114	9	30				
Anthracene	98	93	73-115	4	30				
Benzo(a)anthracene	96	94	59-128	2	30				
Benzo(a)pyrene	95	93	58-142	2	30				
Benzo(b)fluoranthene	102	101	54-163	0	30				
Benzo(g,h,i)perylene	82	79	33-141	3	30				
Benzo(k)fluoranthene	92	90	57-153	2	30				
Butylbenzylphthalate	105	103	57-173	2	30				
Di-n-butylphthalate	110	107	65-148	2	30				
Chrysene	95	93	67-123	2	30				
Dibenz(a,h)anthracene	88	86	22-133	2	30				
Diethylphthalate	108	105	70-136	3	30				
Dimethylphthalate	105	107	74-118	2	30				
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30				
Fluoranthene	105	102	51-149	3	30				
Fluorene	99	95	66-122	4	30				
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30				
1-Methylnaphthalene	84	80	72-123	4	30				
2-Methylnaphthalene	80	77	64-103	3	30				
Naphthalene	86	86	61-102	1	30				
N-Nitrosodimethylamine	34*	34*	48-113	2	30				
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				
Batch number: 113230004A Sample number(s): 6473891-6473896 UNSPK: P470165									
PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				
Batch number: 113211026003A Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Antimony	16*	13*	75-125	9	20	0.168 J	0.108 J	44* (1)	20
Arsenic	119	150*	75-125	10	20	4.59	4.39	5	20
Beryllium	88	108	75-125	14	20	0.494	0.492	0 (1)	20
Cadmium	111	114	75-125	5	20	0.200	0.145	32* (1)	20
Chromium	112	141*	75-125	7	20	32.2	31.6	2	20
Cobalt	106	116	75-125	10	20	7.60	6.23	20	20
Lead	118	134*	75-125	6	20	5.96	5.42	9	20
Nickel	125	140*	75-125	8	20	11.4	11.2	2	20
Silver	107	106	75-125	2	20	0.0356 J	0.0244 J	38* (1)	20
Thallium	111	103	75-125	3	20	0.192	0.170	12 (1)	20
Vanadium	142 (2)	183 (2)	75-125	6	20	54.5	54.1	1	20
Zinc	110 (2)	169 (2)	75-125	11	20	44.2	41.9	5	20
Batch number: 113211026003B Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Selenium	92	105	75-125	15	20	0.134 J	0.174 J	26* (1)	20
Batch number: 113211026003C Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Molybdenum	102	105	75-125	6	20	0.461	0.438	5 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113211026003D Barium	Sample number(s): 6473891-6473896 62 (2)	141 (2)	75-125	9	20	UNSPK: P470165 82.0	BKG: P470165 63.9	25*	20
Batch number: 113215708005 Aluminum	Sample number(s): 6473891-6473896 1462 (2)	1339 (2)	75-125	1	20	UNSPK: P470165 16,800	BKG: P470165 17,300	3	20
Boron	90	91	84-115	1	20	10.2	10.3	0 (1)	20
Calcium	215 (2)	238 (2)	75-125	2	20	3,910	4,000	2	20
Iron	135 (2)	269 (2)	75-125	1	20	23,200	23,500	1	20
Lithium	98	97	82-114	2	20	21.8	21.5	1	20
Magnesium	36 (2)	53 (2)	75-125	1	20	5,420	5,190	4	20
Manganese	148 (2)	118 (2)	75-125	4	20	309	329	6	20
Phosphorus	44 (2)	75 (2)	75-125	5	20	575	544	5	20
Potassium	103	126*	75-125	6	20	2,640	2,500	5	20
Sodium	97	95	75-125	1	20	80.0 J	82.5 J	3 (1)	20
Strontium	98	98	75-115	0	20	22.3	24.4	9	20
Tin	85	85	80-110	0	20	2.74 J	2.78 J	2 (1)	20
Titanium	374 (2)	331 (2)	75-125	3	20	931	974	5	20
Zirconium	94	92	81-110	2	20	8.25	10.1	20 (1)	20
Batch number: 113215711003 Mercury	Sample number(s): 6473891-6473896 97	102	65-135	5	20	UNSPK: 6473891 0.0085 J	BKG: 6473891 0.0082 J	4 (1)	20
Batch number: 113341026001A Copper	Sample number(s): 6473891-6473896 106	110	75-125	2	20	UNSPK: P470168 10.5	BKG: P470168 10.9	4	20
Batch number: 11321373201A 7a Perchlorate EPA 314.0	Sample number(s): 6473891-6473896 94		80-120			UNSPK: 6473891 9.0 U	BKG: 6473891 9.0 U	0 (1)	15
Batch number: 11321373202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6473891-6473896 73*		80-120			UNSPK: 6473891 4.4	BKG: 6473891 4.3	3 (1)	20
Batch number: 11332243201A 3a Cr VI by EPA 7199	Sample number(s): 6473891-6473896 99		75-125			UNSPK: P475869 1.3	BKG: P475869 0.43 J	100* (1)	20
Batch number: 11332039401A 17a pH by 9045C	Sample number(s): 6473891-6473895 17a pH by 9045C					BKG: 6473895 8.71	8.72	0	3
Batch number: 11332039401B 17a pH by 9045C	Sample number(s): 6473896 17a pH by 9045C					BKG: P477491 8.72	8.72	0	3
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473891-6473896 Moisture Content by 160.3					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Surrogate Quality Control

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6473891	72	75	73	69	69	65
6473892	70	72	63	66	67	63
6473893	90	93	72	82	83	82
6473894	92	93	79	80	82	81
6473895	95	96	74	81	86	84
6473896	97	99	87	85	89	84
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59
MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6473891	96	91	85
6473892	101	77	92
6473893	101	90	90
6473894	97	88	93
6473895	88	81	84
6473896	96	88	89
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89
Limits:	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6473891	136	146*
6473892	116	128*
6473893	103	109
6473894	116	118
6473895	105	112
6473896	106	117
Blank	95	123*
LCS	95	116
LCSd	106	126*
MS	97	104
MSD	98	112
Limits:	53-139	45-120

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

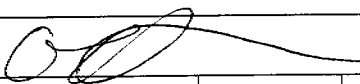
(2) The unspiked result was more than four times the spike added.

acct #13013

Cup #1277028

Sample # 6473891-96

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrailin under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)		
Samplers Signatures: 																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-SS Sleeve			X	X							
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-SS Sleeve			X	X							
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:		
		11/16/2011 / 1630		 LLI 11/17/11 0900										Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No.(s)												
				8767 9857 4961												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 01, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/17/2011

Group Number: 1277029

SDG: DX155

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-007-SA8S-SB-4.0-5.0 Soil
SL-005-SA8S-SB-3.5-4.5 Soil
SL-009-SA8S-SB-4.0-5.0 Soil
SL-009-SA8S-SB-7.0-8.0 Soil
SL-024-SA8S-SB-4.0-5.0 Soil
SL-024-SA8S-SB-7.0-8.0 SoilLancaster Labs (LLI) #6473897
6473898
6473899
6473900
6473901
6473902

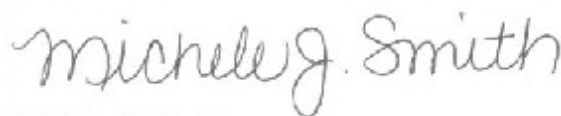
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0606 U	0.0606	1.12	1
11031	12378-PeCDD	40321-76-4	0.0425 U	0.0425	5.62	1
11031	123478-HxCDD	39227-28-6	0.0298 JBQ	0.0210	5.62	1
11031	123678-HxCDD	57653-85-7	0.0331 JBQ	0.0223	5.62	1
11031	123789-HxCDD	19408-74-3	0.0478 JBQ	0.0234	5.62	1
11031	1234678-HpCDD	35822-46-9	0.348 JB	0.0239	5.62	1
11031	OCDD	3268-87-9	0.665 JB	0.0227	11.2	1
11031	2378-TCDF	51207-31-9	0.0401 U	0.0401	1.12	1
11031	12378-PeCDF	57117-41-6	0.0193 U	0.0193	5.62	1
11031	23478-PeCDF	57117-31-4	0.0590 JBQ	0.0178	5.62	1
11031	123478-HxCDF	70648-26-9	0.0394 JBQ	0.0167	5.62	1
11031	123678-HxCDF	57117-44-9	0.0425 JBQ	0.0143	5.62	1
11031	123789-HxCDF	72918-21-9	0.0361 JBQ	0.0184	5.62	1
11031	234678-HxCDF	60851-34-5	0.0204 JBQ	0.0127	5.62	1
11031	1234678-HpCDF	67562-39-4	0.0733 JBQ	0.0111	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0488 JBQ	0.0171	5.62	1
11031	OCDF	39001-02-0	0.0860 JB	0.0378	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/17/2011 09:00

Suite 210

Reported: 12/01/2011 13:15

Chantilly VA 20151

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 20:53	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0502 J	0.0448	1.11	1
11031	12378-PeCDD	40321-76-4	0.0336 U	0.0336	5.53	1
11031	123478-HxCDD	39227-28-6	0.0214 U	0.0214	5.53	1
11031	123678-HxCDD	57653-85-7	0.0238 JBQ	0.0228	5.53	1
11031	123789-HxCDD	19408-74-3	0.0450 JBQ	0.0212	5.53	1
11031	1234678-HpCDD	35822-46-9	0.256 JBQ	0.0245	5.53	1
11031	OCDD	3268-87-9	0.479 JB	0.0201	11.1	1
11031	2378-TCDF	51207-31-9	0.0309 U	0.0309	1.11	1
11031	12378-PeCDF	57117-41-6	0.112 JB	0.0187	5.53	1
11031	23478-PeCDF	57117-31-4	0.124 JBQ	0.0181	5.53	1
11031	123478-HxCDF	70648-26-9	0.0612 JBQ	0.0167	5.53	1
11031	123678-HxCDF	57117-44-9	0.0489 JBQ	0.0136	5.53	1
11031	123789-HxCDF	72918-21-9	0.0553 JB	0.0159	5.53	1
11031	234678-HxCDF	60851-34-5	0.0651 JB	0.0128	5.53	1
11031	1234678-HpCDF	67562-39-4	0.106 JB	0.00932	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0196 JB	0.0159	5.53	1
11031	OCDF	39001-02-0	0.150 JB	0.0341	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	97	32 - 141
13C12-123678-HxCDD	101	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	110	23 - 140
13C12-OCDD	121	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	112	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	89	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 21:50	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0695 JQ	0.0392	1.09	1
11031	12378-PeCDD	40321-76-4	0.0806 JQ	0.0320	5.45	1
11031	123478-HxCDD	39227-28-6	0.0457 JB	0.0263	5.45	1
11031	123678-HxCDD	57653-85-7	0.0370 JBQ	0.0251	5.45	1
11031	123789-HxCDD	19408-74-3	0.0817 JB	0.0249	5.45	1
11031	1234678-HpCDD	35822-46-9	0.256 JB	0.0223	5.45	1
11031	OCDD	3268-87-9	0.706 JBQ	0.0204	10.9	1
11031	2378-TCDF	51207-31-9	0.0375 JQ	0.0305	1.09	1
11031	12378-PeCDF	57117-41-6	0.0721 JBQ	0.0161	5.45	1
11031	23478-PeCDF	57117-31-4	0.0796 JB	0.0155	5.45	1
11031	123478-HxCDF	70648-26-9	0.0610 JB	0.0183	5.45	1
11031	123678-HxCDF	57117-44-9	0.0734 JB	0.0166	5.45	1
11031	123789-HxCDF	72918-21-9	0.108 JB	0.0174	5.45	1
11031	234678-HxCDF	60851-34-5	0.0889 JBQ	0.0160	5.45	1
11031	1234678-HpCDF	67562-39-4	0.102 JB	0.0112	5.45	1
11031	1234789-HpCDF	55673-89-7	0.0695 JBQ	0.0188	5.45	1
11031	OCDF	39001-02-0	0.128 JB	0.0328	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 12:26	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0447 U	0.0447	1.07	1
11031	12378-PeCDD	40321-76-4	0.0334 U	0.0334	5.35	1
11031	123478-HxCDD	39227-28-6	0.0311 JB	0.0202	5.35	1
11031	123678-HxCDD	57653-85-7	0.0305 JB	0.0210	5.35	1
11031	123789-HxCDD	19408-74-3	0.0524 JB	0.0202	5.35	1
11031	1234678-HpCDD	35822-46-9	0.298 JB	0.0247	5.35	1
11031	OCDD	3268-87-9	0.646 JB	0.0195	10.7	1
11031	2378-TCDF	51207-31-9	0.0317 U	0.0317	1.07	1
11031	12378-PeCDF	57117-41-6	0.0378 JBQ	0.0175	5.35	1
11031	23478-PeCDF	57117-31-4	0.0493 JB	0.0158	5.35	1
11031	123478-HxCDF	70648-26-9	0.0320 JBQ	0.0159	5.35	1
11031	123678-HxCDF	57117-44-9	0.0297 JBQ	0.0141	5.35	1
11031	123789-HxCDF	72918-21-9	0.0332 JBQ	0.0160	5.35	1
11031	234678-HxCDF	60851-34-5	0.0535 JBQ	0.0136	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0934 JB	0.0111	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0277 JB	0.0160	5.35	1
11031	OCDF	39001-02-0	0.104 JB	0.0362	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 13:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	11.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0430 U	0.0430	1.10	1
11031	12378-PeCDD	40321-76-4	0.0315 U	0.0315	5.52	1
11031	123478-HxCDD	39227-28-6	0.0239 JBQ	0.0231	5.52	1
11031	123678-HxCDD	57653-85-7	0.0333 JB	0.0226	5.52	1
11031	123789-HxCDD	19408-74-3	0.0230 U	0.0230	5.52	1
11031	1234678-HpCDD	35822-46-9	0.296 JBQ	0.0198	5.52	1
11031	OCDD	3268-87-9	1.01 JB	0.0211	11.0	1
11031	2378-TCDF	51207-31-9	0.0300 U	0.0300	1.10	1
11031	12378-PeCDF	57117-41-6	0.0207 JB	0.0152	5.52	1
11031	23478-PeCDF	57117-31-4	0.0530 JB	0.0147	5.52	1
11031	123478-HxCDF	70648-26-9	0.0503 JBQ	0.0128	5.52	1
11031	123678-HxCDF	57117-44-9	0.0331 JBQ	0.0108	5.52	1
11031	123789-HxCDF	72918-21-9	0.0303 JBQ	0.0140	5.52	1
11031	234678-HxCDF	60851-34-5	0.0263 JB	0.0115	5.52	1
11031	1234678-HpCDF	67562-39-4	0.113 JBQ	0.00955	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0211 JBQ	0.0155	5.52	1
11031	OCDF	39001-02-0	0.174 JBQ	0.0308	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/17/2011 09:00

Suite 210

Reported: 12/01/2011 13:15

Chantilly VA 20151

X5511 SDG#: DX155-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 14:19	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0388 U	0.0388	1.12	1
11031	12378-PeCDD	40321-76-4	0.0320 U	0.0320	5.62	1
11031	123478-HxCDD	39227-28-6	0.0325 JB	0.0221	5.62	1
11031	123678-HxCDD	57653-85-7	0.0358 JBQ	0.0229	5.62	1
11031	123789-HxCDD	19408-74-3	0.0409 JBQ	0.0237	5.62	1
11031	1234678-HpCDD	35822-46-9	0.307 JBQ	0.0258	5.62	1
11031	OCDD	3268-87-9	0.810 JB	0.0197	11.2	1
11031	2378-TCDF	51207-31-9	0.0302 U	0.0302	1.12	1
11031	12378-PeCDF	57117-41-6	0.0144 U	0.0144	5.62	1
11031	23478-PeCDF	57117-31-4	0.0338 JBQ	0.0144	5.62	1
11031	123478-HxCDF	70648-26-9	0.0260 JBQ	0.0143	5.62	1
11031	123678-HxCDF	57117-44-9	0.0119 U	0.0119	5.62	1
11031	123789-HxCDF	72918-21-9	0.0164 JBQ	0.0147	5.62	1
11031	234678-HxCDF	60851-34-5	0.0333 JB	0.0124	5.62	1
11031	1234678-HpCDF	67562-39-4	0.0804 JBQ	0.00745	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0496 JBQ	0.0124	5.62	1
11031	OCDF	39001-02-0	0.196 JB	0.0315	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/17/2011 09:00

Suite 210

Reported: 12/01/2011 13:15

Chantilly VA 20151

X5512 SDG#: DX155-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 15:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/11 at 01:15 PM

Group Number: 1277029

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473897-6473902				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6473897-6473902								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473897-6473902					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/11 at 01:15 PM

Group Number: 1277029

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6473897	61	74	59	69	76	67
6473898	83	88	66	83	87	83
6473899	71	80	64	75	74	81
6473900	69	82	70	76	83	83
6473901	71	77	67	76	73	73
6473902	71	79	67	78	76	76
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70

Limits: 25-164 21-178 26-152 26-123 28-136 29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6473897	88	70	73	77	83	88
6473898	112	84	89	95	97	101
6473899	100	74	78	82	80	86
6473900	93	81	82	81	83	84
6473901	95	73	78	79	79	84
6473902	102	75	82	83	81	86
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85

Limits: 28-143 26-138 17-157 25-181 32-141 28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6473897	82	87	92	61	76
6473898	99	110	121	78	98
6473899	83	93	98	71	86
6473900	82	87	95	70	83
6473901	80	87	97	71	83
6473902	83	93	102	70	87
Blank	97	105	114	86	102
OPR	82	90	96	67	82

Limits: 28-130 23-140 17-157 24-169 24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

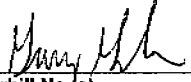
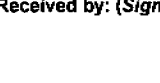
(2) The unspiked result was more than four times the spike added.

acct #13013

Cup #1277029

Sample # 6473897-903

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				Primary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 6010/6020/87471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-SS Sleeve			X	X							
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-SS Sleeve			X	X							
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)												Laboratory:	
	11/16/2011 / 1630		 LLI 11/17/11 0900												Lancaster Laboratories, Inc.	
Received by: (Signature)	Date/Time		Airbill No. (s)													
			8767 9857 4961													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/18/2011
Group Number: 1277303
SDG: DE288
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-010-SA8S-SB-4.0-5.0 Soil
SL-010-SA8S-SB-8.5-9.5 Soil
SL-008-SA8S-SB-2.0-3.0 Soil
SL-011-SA8S-SB-4.0-5.0 Soil
EB-SA8S-SB-111711 Water

Lancaster Labs (LLI)

6475866
6475867
6475868
6475869
6475870

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

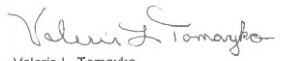
ELECTRONIC
COPY TO
1 COPY TO

CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	26,100	6.75	22.3	1
07914	Boron	7440-42-8	5.00 J	0.402	5.58	1
01650	Calcium	7440-70-2	66,300	5.58	44.6	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	43,200	5.83	44.6	2
01656	Lithium	7439-93-2	34.1	0.69	2.2	1
01657	Magnesium	7439-95-4	9,100	0.491	11.2	1
06958	Manganese	7439-96-5	303	0.0402	0.558	1
10145	Phosphorus	7723-14-0	374	0.391	11.2	1
01662	Potassium	7440-09-7	3,920	12.6	55.8	1
01667	Sodium	7440-23-5	136	6.64	112	1
07968	Strontium	7440-24-6	93.1	0.0279	0.558	1
06969	Tin	7440-31-5	3.58 J	0.357	11.2	1
06970	Titanium	7440-32-6	1,080	0.0792	1.12	1
10146	Zirconium	7440-67-7	7.71	0.513	5.58	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.196 J	0.0826	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	11.4	0.0893	0.446	2
06126	Barium	7440-39-3	101	0.118	0.446	2
06127	Beryllium	7440-41-7	0.968	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.196	0.0491	0.112	2
06131	Chromium	7440-47-3	30.3	0.134	0.446	2
06132	Cobalt	7440-48-4	12.8	0.0223	0.112	2
06133	Copper	7440-50-8	36.9	0.0893	0.446	2
06135	Lead	7439-92-1	16.7	0.0114	0.223	2
06138	Molybdenum	7439-98-7	0.595	0.0558	0.112	2
06139	Nickel	7440-02-0	25.0	0.112	0.446	2
06141	Selenium	7782-49-2	0.508	0.0647	0.446	2
06142	Silver	7440-22-4	0.0281 J	0.0158	0.112	2
06145	Thallium	7440-28-0	0.448	0.0335	0.112	2
06148	Vanadium	7440-62-2	63.3	0.0246	0.112	2
06149	Zinc	7440-66-6	83.1	0.625	3.35	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 U	0.0079	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.65	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.0	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 12:42	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 21:49	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:18	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:11	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/26/2011 10:11	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:07	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:12	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:31	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 18:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 18:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,200	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9	1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,400	6.70	22.2	1
07914	Boron	7440-42-8	5.58	0.399	5.54	1
01650	Calcium	7440-70-2	70,600	5.54	44.3	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,100	2.89	22.2	1
01656	Lithium	7439-93-2	28.1	0.69	2.2	1
01657	Magnesium	7439-95-4	7,610	0.487	11.1	1
06958	Manganese	7439-96-5	275	0.0399	0.554	1
10145	Phosphorus	7723-14-0	582	0.388	11.1	1
01662	Potassium	7440-09-7	3,190	12.5	55.4	1
01667	Sodium	7440-23-5	148	6.59	111	1
07968	Strontium	7440-24-6	101	0.0277	0.554	1
06969	Tin	7440-31-5	3.72 J	0.354	11.1	1
06970	Titanium	7440-32-6	649	0.0787	1.11	1
10146	Zirconium	7440-67-7	8.05	0.510	5.54	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.182 J	0.0820	0.222	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	16.0	0.0886	0.443	2
06126	Barium	7440-39-3	111	0.117	0.443	2
06127	Beryllium	7440-41-7	0.964	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.256	0.0487	0.111	2
06131	Chromium	7440-47-3	29.8	0.133	0.443	2
06132	Cobalt	7440-48-4	13.5	0.0222	0.111	2
06133	Copper	7440-50-8	37.9	0.0886	0.443	2
06135	Lead	7439-92-1	20.7	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.568	0.0554	0.111	2
06139	Nickel	7440-02-0	25.2	0.111	0.443	2
06141	Selenium	7782-49-2	0.234 J	0.0643	0.443	2
06142	Silver	7440-22-4	0.0345 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.389	0.0332	0.111	2
06148	Vanadium	7440-62-2	58.7	0.0244	0.111	2
06149	Zinc	7440-66-6	114	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 U	0.0080	0.114	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.11	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:06	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 22:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:36	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:25	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:21	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:30	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 19:22	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 18:14	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	10 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	16 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,100	6.50	21.5	1
07914	Boron	7440-42-8	7.42	0.387	5.38	1
01650	Calcium	7440-70-2	172,000	13.4	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	19,000	2.81	21.5	1
01656	Lithium	7439-93-2	9.8	0.67	2.2	1
01657	Magnesium	7439-95-4	4,330	0.473	10.8	1
06958	Manganese	7439-96-5	325	0.0387	0.538	1
10145	Phosphorus	7723-14-0	328	0.376	10.8	1
01662	Potassium	7440-09-7	2,160	12.1	53.8	1
01667	Sodium	7440-23-5	128	6.40	108	1
07968	Strontium	7440-24-6	212	0.0269	0.538	1
06969	Tin	7440-31-5	2.68 J	0.344	10.8	1
06970	Titanium	7440-32-6	478	0.0763	1.08	1
10146	Zirconium	7440-67-7	5.48	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.120 J	0.0788	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.82	0.0852	0.426	2
06126	Barium	7440-39-3	60.0	0.113	0.426	2
06127	Beryllium	7440-41-7	0.490	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.285	0.0468	0.106	2
06131	Chromium	7440-47-3	28.8	0.128	0.426	2
06132	Cobalt	7440-48-4	5.53	0.0213	0.106	2
06133	Copper	7440-50-8	10.1	0.0852	0.426	2
06135	Lead	7439-92-1	5.98	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.282	0.0532	0.106	2
06139	Nickel	7440-02-0	11.7	0.106	0.426	2
06141	Selenium	7782-49-2	0.103 J	0.0617	0.426	2
06142	Silver	7440-22-4	0.0151 U	0.0151	0.106	2
06145	Thallium	7440-28-0	0.156	0.0319	0.106	2
06148	Vanadium	7440-62-2	36.5	0.0234	0.106	2
06149	Zinc	7440-66-6	34.7	0.596	3.19	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.47	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:30	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 22:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:55	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:32	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:29	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:31	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 20:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/02/2011 13:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.0 J	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,000	6.66	22.0	1
07914	Boron	7440-42-8	6.87	0.396	5.51	1
01650	Calcium	7440-70-2	129,000	13.8	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	15,100	2.87	22.0	1
01656	Lithium	7439-93-2	11.4	0.68	2.2	1
01657	Magnesium	7439-95-4	4,450	0.485	11.0	1
06958	Manganese	7439-96-5	302	0.0396	0.551	1
10145	Phosphorus	7723-14-0	321	0.385	11.0	1
01662	Potassium	7440-09-7	2,090	12.4	55.1	1
01667	Sodium	7440-23-5	115	6.55	110	1
07968	Strontium	7440-24-6	160	0.0275	0.551	1
06969	Tin	7440-31-5	2.92 J	0.352	11.0	1
06970	Titanium	7440-32-6	569	0.0782	1.10	1
10146	Zirconium	7440-67-7	5.16 J	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0799	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.01	0.0864	0.432	2
06126	Barium	7440-39-3	72.8	0.114	0.432	2
06127	Beryllium	7440-41-7	0.630	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.222	0.0475	0.108	2
06131	Chromium	7440-47-3	38.9	0.130	0.432	2
06132	Cobalt	7440-48-4	7.99	0.0216	0.108	2
06133	Copper	7440-50-8	10.9	0.0864	0.432	2
06135	Lead	7439-92-1	6.52	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.283	0.0540	0.108	2
06139	Nickel	7440-02-0	15.7	0.108	0.432	2
06141	Selenium	7782-49-2	0.0717 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0153 U	0.0153	0.108	2
06145	Thallium	7440-28-0	0.248	0.0324	0.108	2
06148	Vanadium	7440-62-2	53.9	0.0238	0.108	2
06149	Zinc	7440-66-6	45.9	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.60	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:55	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 23:32	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 06:13	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:40	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:36	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:39	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:33	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 12:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 20:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 18:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	6	1
04678	Benzidine	92-87-5	22 U	22	66	1
04678	Benzoic acid	65-85-0	7 U	7	17	1
04678	Benzyl alcohol	100-51-6	6 U	6	17	1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	6	1
04678	Carbazole	86-74-8	1 U	1	6	1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	6	1
04678	4-Chloroaniline	106-47-8	1 U	1	6	1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	6	1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	6	1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	6	1
04678	2-Chloronaphthalene	91-58-7	2 U	2	6	1
04678	2-Chlorophenol	95-57-8	1 U	1	6	1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	6	1
04678	Dibenzofuran	132-64-9	1 U	1	6	1
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	6	1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	6	1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	6	1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	6	1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	6	1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11	1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	6 U	6	17	1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	33	1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	6	1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	6	1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	6	1
04678	Hexachlorobenzene	118-74-1	1 U	1	6	1
04678	Hexachlorobutadiene	87-68-3	1 U	1	6	1
04678	Hexachlorocyclopentadiene	77-47-4	6 U	6	17	1
04678	Hexachloroethane	67-72-1	1 U	1	6	1
04678	Isophorone	78-59-1	1 U	1	6	1
04678	2-Methylphenol	95-48-7	1 U	1	6	1
04678	4-Methylphenol	106-44-5	2 U	2	6	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04678	2-Nitroaniline	88-74-4	1 U	1	6	1
04678	3-Nitroaniline	99-09-2	1 U	1	6	1
04678	4-Nitroaniline	100-01-6	1 U	1	6	1
04678	Nitrobenzene	98-95-3	1 U	1	6	1
04678	2-Nitrophenol	88-75-5	1 U	1	6	1
04678	4-Nitrophenol	100-02-7	11 U	11	33	1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	6	1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	6	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	17	1
04678	Phenol	108-95-2	1 U	1	6	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l		ug/l	ug/l	
04678	1,2,4-Trichlorobenzene	120-82-1	1	U	1	6	1
04678	2,4,5-Trichlorophenol	95-95-4	1	U	1	6	1
04678	2,4,6-Trichlorophenol	88-06-2	1	U	1	6	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l		ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.011	U	0.011	0.053	1
10137	Acenaphthylene	208-96-8	0.011	U	0.011	0.053	1
10137	Anthracene	120-12-7	0.011	U	0.011	0.053	1
10137	Benzo(a)anthracene	56-55-3	0.011	U	0.011	0.053	1
10137	Benzo(a)pyrene	50-32-8	0.011	U	0.011	0.053	1
10137	Benzo(b)fluoranthene	205-99-2	0.011	U	0.011	0.053	1
10137	Benzo(g,h,i)perylene	191-24-2	0.011	U	0.011	0.053	1
10137	Benzo(k)fluoranthene	207-08-9	0.011	U	0.011	0.053	1
10137	Butylbenzylphthalate	85-68-7	0.053	U	0.053	1.1	1
10137	Di-n-butylphthalate	84-74-2	0.31	J	0.053	1.1	1
10137	Chrysene	218-01-9	0.011	U	0.011	0.053	1
10137	Dibenz(a,h)anthracene	53-70-3	0.011	U	0.011	0.053	1
10137	Diethylphthalate	84-66-2	0.066	J	0.053	1.1	1
10137	Dimethylphthalate	131-11-3	0.053	U	0.053	1.1	1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.12	J	0.053	1.1	1
10137	Fluoranthene	206-44-0	0.011	U	0.011	0.053	1
10137	Fluorene	86-73-7	0.011	U	0.011	0.053	1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.011	U	0.011	0.053	1
10137	1-Methylnaphthalene	90-12-0	0.011	U	0.011	0.053	1
10137	2-Methylnaphthalene	91-57-6	0.012	J	0.011	0.053	1
10137	Naphthalene	91-20-3	0.066		0.032	0.053	1
10137	N-Nitrosodimethylamine	62-75-9	0.011	U	0.011	0.053	1
10137	Di-n-octylphthalate	117-84-0	0.084	J	0.053	1.1	1
10137	Phenanthrene	85-01-8	0.032	U	0.032	0.053	1
10137	Pyrene	129-00-0	0.011	U	0.011	0.053	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of .083 ug/l. The blank value was not subtracted from the analytical result.

Reporting limits were raised due to limited sample volume.

Pesticides/PCBs	SW-846 8082	ug/l		ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.10	U	0.10	0.51
10227	Aroclor 5442	12642-23-8	0.10	U	0.10	0.51
10227	Aroclor 5460	11126-42-4	0.10	U	0.10	0.51
10227	PCB-1016	12674-11-2	0.10	U	0.10	0.51
10227	PCB-1221	11104-28-2	0.10	U	0.10	0.51
10227	PCB-1232	11141-16-5	0.20	U	0.20	0.51
10227	PCB-1242	53469-21-9	0.10	U	0.10	0.51
10227	PCB-1248	12672-29-6	0.10	U	0.10	0.51
10227	PCB-1254	11097-69-1	0.10	U	0.10	0.51
10227	PCB-1260	11096-82-5	0.15	U	0.15	0.51
10227	PCB-1262	37324-23-5	0.20	U	0.20	0.51
10227	PCB-1268	11100-14-4	0.16	U	0.16	0.51

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801 U	0.0801	0.200	1
08014	Boron	7440-42-8	0.0042 J	0.0022	0.0500	1
01750	Calcium	7440-70-2	0.0705 U	0.0705	0.200	1
01754	Iron	7439-89-6	0.0141 U	0.0141	0.200	1
01756	Lithium	7439-93-2	0.0076 U	0.0076	0.0200	1
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100	1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050	1
10143	Phosphorus	7723-14-0	0.0047 U	0.0047	0.100	1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500	1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00	1
08068	Strontium	7440-24-6	0.00023 J	0.00022	0.0050	1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200	1
07070	Titanium	7440-32-6	0.00046 U	0.00046	0.0100	1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500	1
	SW-846 6020		mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010	1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020	1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020	1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050	1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050	1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020	1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050	1
06033	Copper	7440-50-8	0.00038 U	0.00038	0.0020	1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010	1
06038	Molybdenum	7439-98-7	0.00025 U	0.00025	0.00050	1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020	1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020	1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050	1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050	1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050	1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020	1
Wet Chemistry						
	EPA 300.0		mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10	1
	EPA 314.0		ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0	1
	SW-846 7199		ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0	1
	SW-846 9040B		Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.6	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	11327WAA026	12/10/2011 08:14	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11323WU026	11/30/2011 04:27	Mark A Clark	1
00813	BNA Water Extraction	SW-846 3510C	1	11327WAA026	11/23/2011 18:00	Nicholas W Shroyer	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11323WU026	11/20/2011 10:15	Elaine F Stoltzfus	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113250021A	11/30/2011 08:05	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113250021A	11/21/2011 21:20	Karen L Beyer	1
01743	Aluminum	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
08014	Boron	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01754	Iron	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01756	Lithium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
10143	Phosphorus	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01762	Potassium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01767	Sodium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
08068	Strontium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07069	Tin	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07070	Titanium	SW-846 6010B	1	113261848002	11/28/2011 13:40	Joanne M Gates	1
10144	Zirconium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
06024	Antimony	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113266050003D	11/29/2011 17:35	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113266050003C	11/29/2011 17:35	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113266050003B	11/29/2011 17:35	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113265713007	11/23/2011 08:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113261848002	11/23/2011 09:52	Denise K Connors	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113266050003	11/23/2011 09:48	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113265713007	11/22/2011 18:41	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11333196602B	11/30/2011 02:34	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11322281101A	11/18/2011 12:16	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11322281401B	11/18/2011 11:45	Elyse P Brunstetter	1
00200	17b pH by 9040B	SW-846 9040B	1	11322020003A	11/18/2011 22:25	Luz M Groff	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11323WAU026 Sample number(s): 6475870									
Acenaphthene	0.010 U	0.010	0.050	ug/l	102	106	74-109	3	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	106	110	70-110	3	30
Anthracene	0.010 U	0.010	0.050	ug/l	99	82	66-111	19	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	105	108	72-114	3	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	102	105	60-127	4	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	110	113	58-151	3	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	64	70	57-131	9	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	100	104	59-130	4	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	104	108	40-138	3	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	115	101	56-148	13	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	103	76-116	3	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	80	85	55-134	7	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	74	66	37-148	11	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	104	107	40-119	3	30
Bis(2-Ethylhexyl)phthalate	0.083 J	0.050	1.0	ug/l	111	113	57-154	2	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	109	95	75-116	14	30
Fluorene	0.010 U	0.010	0.050	ug/l	102	103	75-114	1	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	76	81	53-158	6	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	94	99	71-117	5	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	98	75-115	5	30
Naphthalene	0.030 U	0.030	0.050	ug/l	99	104	72-109	4	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	47	50	36-89	6	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	107	111	57-145	4	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	100	85	76-111	16	30
Pyrene	0.010 U	0.010	0.050	ug/l	99	103	69-118	4	30
Batch number: 11326SLE026 Sample number(s): 6475866-6475869									
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	65		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	90		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	101		51-117		
Phenol	17 U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026	Sample number(s): 6475866-6475869								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	105		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		

Batch number: 11327WAA026

Sample number(s): 6475870

Aniline	1	U	1.	5	ug/l	69	68	38-116	3	30
Benzidine	20	U	20.	60	ug/l	50	51	34-117	1	30
Benzoic acid	6	U	6.	15	ug/l	44	46	10-69	6	30
Benzyl alcohol	5	U	5.	15	ug/l	85	83	66-97	2	30
4-Bromophenyl-phenylether	1	U	1.	5	ug/l	94	100	75-115	7	30
Carbazole	1	U	1.	5	ug/l	97	103	75-120	7	30
4-Chloro-3-methylphenol	1	U	1.	5	ug/l	97	96	70-123	1	30
4-Chloroaniline	1	U	1.	5	ug/l	57	53	24-128	6	30
bis(2-Chloroethoxy)methane	1	U	1.	5	ug/l	90	93	74-124	3	30
bis(2-Chloroethyl)ether	1	U	1.	5	ug/l	95	92	77-108	4	30
bis(2-Chloroisopropyl)ether	1	U	1.	5	ug/l	91	91	62-127	0	30
2-Chloronaphthalene	2	U	2.	5	ug/l	99	100	54-132	2	30
2-Chlorophenol	1	U	1.	5	ug/l	99	95	71-114	4	30
4-Chlorophenyl-phenylether	2	U	2.	5	ug/l	96	96	77-114	1	30
Dibenzofuran	1	U	1.	5	ug/l	92	94	75-117	2	30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	83	83	55-118	0	30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	82	83	61-111	1	30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	81	82	53-119	2	30
3,3'-Dichlorobenzidine	2	U	2.	5	ug/l	52	54	37-117	4	30
2,4-Dichlorophenol	1	U	1.	5	ug/l	98	97	77-117	1	30
2,4-Dimethylphenol	3	U	3.	10	ug/l	96	97	72-110	1	30
3,5-Dimethylphenol	3	U	3.	10	ug/l	103	103	70-130	0	30
4,6-Dinitro-2-methylphenol	5	U	5.	15	ug/l	97	109	65-126	11	30
2,4-Dinitrophenol	10	U	10.	30	ug/l	85	91	52-131	8	30
2,4-Dinitrotoluene	1	U	1.	5	ug/l	97	100	76-119	3	30
2,6-Dinitrotoluene	1	U	1.	5	ug/l	101	99	76-118	1	30
1,2-Diphenylhydrazine	1	U	1.	5	ug/l	97	103	68-127	6	30
Hexachlorobenzene	1	U	1.	5	ug/l	94	101	75-119	7	30
Hexachlorobutadiene	1	U	1.	5	ug/l	82	86	57-124	5	30
Hexachlorocyclopentadiene	5	U	5.	15	ug/l	76	82	36-118	8	30
Hexachloroethane	1	U	1.	5	ug/l	79	80	52-113	1	30
Isophorone	1	U	1.	5	ug/l	94	96	74-117	3	30
2-Methylphenol	1	U	1.	5	ug/l	93	93	58-110	1	30
4-Methylphenol	2	U	2.	5	ug/l	83	81	49-108	3	30
2-Nitroaniline	1	U	1.	5	ug/l	98	99	75-120	2	30
3-Nitroaniline	1	U	1.	5	ug/l	90	92	74-113	2	30
4-Nitroaniline	1	U	1.	5	ug/l	61	59	59-100	3	30
Nitrobenzene	1	U	1.	5	ug/l	92	95	75-109	3	30
2-Nitrophenol	1	U	1.	5	ug/l	94	97	76-118	4	30
4-Nitrophenol	10	U	10.	30	ug/l	51	51	16-78	1	30
N-Nitroso-di-n-propylamine	1	U	1.	5	ug/l	89	86	69-110	3	30
N-Nitrosodiphenylamine	2	U	2.	5	ug/l	95	103	67-136	8	30
Pentachlorophenol	3	U	3.	15	ug/l	93	101	53-110	8	30
Phenol	1	U	1.	5	ug/l	55	52	21-67	6	30
1,2,4-Trichlorobenzene	1	U	1.	5	ug/l	85	88	71-112	4	30
2,4,5-Trichlorophenol	1	U	1.	5	ug/l	101	100	79-107	1	30
2,4,6-Trichlorophenol	1	U	1.	5	ug/l	100	101	76-120	1	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 113230004A									
Sample number(s): 6475866-6475869									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113250021A									
Sample number(s): 6475870									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	74	68	35-84	8	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	90	92	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	102	100	56-135	2	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113241026002A									
Sample number(s): 6475866-6475869									
Antimony	0.0718 U	0.0718	0.194	mg/kg	70		40-227		
Arsenic	0.0777 U	0.0777	0.388	mg/kg	96		83-111		
Beryllium	0.0155 U	0.0155	0.0971	mg/kg	97		84-112		
Cadmium	0.0427 U	0.0427	0.0971	mg/kg	99		83-111		
Chromium	0.117 U	0.117	0.388	mg/kg	104		77-123		
Cobalt	0.0194 U	0.0194	0.0971	mg/kg	99		85-114		
Copper	0.0777 U	0.0777	0.388	mg/kg	99		81-110		
Lead	0.0099 U	0.0099	0.194	mg/kg	99		84-112		
Nickel	0.0971 U	0.0971	0.388	mg/kg	102		81-110		
Silver	0.0138 U	0.0138	0.0971	mg/kg	101		83-112		
Thallium	0.0291 U	0.0291	0.0971	mg/kg	99		82-112		
Vanadium	0.0214 U	0.0214	0.0971	mg/kg	99		76-110		
Zinc	0.689 J	0.544	2.91	mg/kg	99		82-110		
Batch number: 113241026002B									
Sample number(s): 6475866-6475869									
Selenium	0.0563 U	0.0563	0.388	mg/kg	99		79-110		
Batch number: 113241026002C									
Sample number(s): 6475866-6475869									
Molybdenum	0.0485 U	0.0485	0.0971	mg/kg	96		80-110		
Batch number: 113241026002D									
Sample number(s): 6475866-6475869									
Barium	0.103 U	0.103	0.388	mg/kg	98		83-110		
Batch number: 113245708004									
Sample number(s): 6475866-6475869									
Aluminum	5.93 U	5.93	19.6	mg/kg	79		40-127		
Boron	0.353 U	0.353	4.90	mg/kg	97		83-110		
Calcium	6.46 J	2.45	19.6	mg/kg	100		81-110		
Iron	3.25 J	2.56	19.6	mg/kg	84		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Magnesium	2.95 J	0.431	9.80	mg/kg	85		63-116		
Manganese	0.0588 J	0.0353	0.490	mg/kg	97		85-116		
Phosphorus	1.31 J	0.343	9.80	mg/kg	102		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	96		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	96		76-110		
Strontium	0.0245 U	0.0245	0.490	mg/kg	98		84-110		
Tin	1.21 J	0.314	9.80	mg/kg	98		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	82		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	103		80-120		
Batch number: 113245711003	Sample number(s): 6475866-6475869								
Mercury	0.0068 U	0.0068	0.0972	mg/kg	92		83-119		
Batch number: 113261848002	Sample number(s): 6475870								
Aluminum	0.0801 U	0.0801	0.200	mg/l	105	101	90-112	4	20
Boron	0.0042 J	0.0022	0.0500	mg/l	95	95	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	103	102	90-110	1	20
Iron	0.0173 J	0.0141	0.200	mg/l	102	101	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	103	101	90-110	2	20
Magnesium	0.0327 J	0.0067	0.100	mg/l	101	100	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	100	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	99	99	90-110	1	20
Potassium	0.0912 J	0.0874	0.500	mg/l	102	101	85-115	1	20
Sodium	0.0647 U	0.0647	1.00	mg/l	101	100	87-114	1	20
Strontium	0.00029 J	0.00022	0.0050	mg/l	99	100	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	99	99	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	100	100	90-113	0	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	102	90-110	1	20
Batch number: 113265713007	Sample number(s): 6475870								
Mercury	0.000034 J	0.00002	0.00020	mg/l	89	90	80-120	1	20
Batch number: 113266050003A	Sample number(s): 6475870								
Antimony	0.00042 U	0.00042	0.0010	mg/l	113*	104	87-110	9	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	103	110	86-111	6	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	109	107	90-113	1	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	112	106	90-114	6	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	113	109	90-118	3	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	106	105	87-113	1	20
Copper	0.00038 U	0.00038	0.0020	mg/l	108	109	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	106	90-115	2	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	111	107	90-113	4	20
Silver	0.000098 U	0.00009	0.00050	mg/l	106	109	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	101	108	89-116	7	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	107	89-116	3	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	104	109	90-116	5	20
Batch number: 113266050003B	Sample number(s): 6475870								
Selenium	0.00027 U	0.00027	0.0020	mg/l	111	111	85-114	1	20
Batch number: 113266050003C	Sample number(s): 6475870								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	105	107	89-115	3	20
Batch number: 113266050003D	Sample number(s): 6475870								
Barium	0.00069 U	0.00069	0.0020	mg/l	106	103	88-113	2	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Reported: 12/14/11 at 05:12 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11322281101A 7b Perchlorate EPA 314.0	Sample number(s): 6475870 0.70 U 0.70	2.0	ug/l	94	90	85-115	5	20	
Batch number: 11322281401B 3b Cr VI by EPA 7199	Sample number(s): 6475870 5.0 U 5.0	10.0	ug/l	103	101	90-110	2	20	
Batch number: 11322373201A 7a Perchlorate EPA 314.0	Sample number(s): 6475866-6475869 9.0 U 9.0	30.0	ug/kg	115		85-115			
Batch number: 11322373202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6475866-6475869 0.80 U 0.80	1.0	mg/kg	92		90-110			
Batch number: 11332243201A 3a Cr VI by EPA 7199	Sample number(s): 6475866-6475869 0.20 U 0.20	1.0	mg/kg	103		80-120			
Batch number: 11333196602B 11b Anions by 300.0 - Fluoride	Sample number(s): 6475870 0.080 U 0.080	0.10	mg/l	99	100	90-110	1	20	
Batch number: 11322020003A 17b pH by 9040B	Sample number(s): 6475870			100	100	90-110	0	3	
Batch number: 11332039401B 17a pH by 9045C	Sample number(s): 6475866-6475869			100		95-105			
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6475866-6475869			99		80-120			

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11326SLE026	Sample number(s): 6475866-6475869 UNSPK: P473891								
Aniline	55	67	18-116	19	30				
Benizidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				

Batch number: 11326SLG026	Sample number(s): 6475866-6475869 UNSPK: P473891				
Acenaphthene	94	91	63-105	3	30
Acenaphthylene	97	88	67-114	9	30
Anthracene	98	93	73-115	4	30
Benzo(a)anthracene	96	94	59-128	2	30
Benzo(a)pyrene	95	93	58-142	2	30
Benzo(b)fluoranthene	102	101	54-163	0	30
Benzo(g,h,i)perylene	82	79	33-141	3	30
Benzo(k)fluoranthene	92	90	57-153	2	30
Butylbenzylphthalate	105	103	57-173	2	30
Di-n-butylphthalate	110	107	65-148	2	30
Chrysene	95	93	67-123	2	30
Dibenz(a,h)anthracene	88	86	22-133	2	30
Diethylphthalate	108	105	70-136	3	30
Dimethylphthalate	105	107	74-118	2	30
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30
Fluoranthene	105	102	51-149	3	30
Fluorene	99	95	66-122	4	30
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30
1-Methylnaphthalene	84	80	72-123	4	30
2-Methylnaphthalene	80	77	64-103	3	30
Naphthalene	86	86	61-102	1	30
N-Nitrosodimethylamine	34*	34*	48-113	2	30

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				
Batch number: 113230004A	Sample number(s): 6475866-6475869 UNSPK: P470165								
PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				
Batch number: 113241026002A	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Antimony	17*	24*	75-125	21*	20	0.170 J	0.251	38* (1)	20
Arsenic	120 (2)	315 (2)	75-125	27*	20	9.95	19.1	63*	20
Beryllium	99	141*	75-125	18	20	0.842	1.20	35*	20
Cadmium	113	133*	75-125	13	20	0.170	0.166	3 (1)	20
Chromium	133*	213*	75-125	18	20	26.3	47.5	57*	20
Cobalt	116	148*	75-125	20	20	11.1	22.0	66*	20
Copper	123	235*	75-125	22*	20	32.1	66.3	70*	20
Lead	132 (2)	322 (2)	75-125	26*	20	14.6	27.7	62*	20
Nickel	133*	227*	75-125	23*	20	21.7	44.2	68*	20
Silver	107	124	75-125	14	20	0.0245 J	0.0472 J	64* (1)	20
Thallium	114	149*	75-125	15	20	0.390	0.646	50* (1)	20
Vanadium	162 (2)	300 (2)	75-125	17	20	55.1	97.3	55*	20
Zinc	146 (2)	375 (2)	75-125	23*	20	72.3	144	66*	20
Batch number: 113241026002B	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Selenium	81	80	75-125	1	20	0.442	0.300 J	38* (1)	20
Batch number: 113241026002C	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Molybdenum	98	117	75-125	16	20	0.518	0.434	18 (1)	20
Batch number: 113241026002D	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Barium	146 (2)	388 (2)	75-125	21*	20	87.5	171	65*	20
Batch number: 113245708004	Sample number(s): 6475866-6475869 UNSPK: P467994 BKG: P467994								
Aluminum	1838 (2)	1801 (2)	75-125	0	20	17,200	16,900	2	20
Boron	97	97	84-115	3	20	4.24 J	4.57 J	8 (1)	20
Calcium	166 (2)	180 (2)	75-125	2	20	4,310	4,290	0	20
Iron	1639 (2)	569 (2)	75-125	4	20	26,400	24,000	9	20
Lithium	99	98	82-114	2	20	31.1	29.0	7	20
Magnesium	376 (2)	385 (2)	75-125	1	20	7,400	6,950	6	20
Manganese	-1 (2)	137 (2)	75-125	21*	20	289	278	4	20
Phosphorus	115 (2)	111 (2)	75-125	0	20	514	491	5	20
Potassium	158*	155*	75-125	0	20	2,690	2,670	1	20
Sodium	98	99	75-125	3	20	151	198	27* (1)	20
Strontium	99	99	75-115	3	20	16.4	18.6	12	20
Tin	85	86	80-110	4	20	20.4	2.70 J	153* (1)	20
Titanium	430 (2)	424 (2)	75-125	1	20	967	999	3	20
Zirconium	99	99	81-110	3	20	6.90	7.27	5 (1)	20
Batch number: 113245711003	Sample number(s): 6475866-6475869 UNSPK: P477490 BKG: P477490								
Mercury	97	99	65-135	4	20	0.0066 U	0.0070 U	0 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11322373201A 7a Perchlorate EPA 314.0	105		80-120	Sample number(s): 6475866-6475869	UNSPK: 6475866	BKG: 6475866	9.0 U	9.0 U	0 (1) 15
Batch number: 11322373202A 11a Anions by 300.0 - Fluoride	83		80-120	Sample number(s): 6475866-6475869	UNSPK: 6475866	BKG: 6475866	1.3 0.80 U	200* (1)	20
Batch number: 11332243201A 3a Cr VI by EPA 7199	99		75-125	Sample number(s): 6475866-6475869	UNSPK: 6475869	BKG: 6475869	1.3 0.43 J	100* (1)	20
Batch number: 11332039401B 17a pH by 9045C				Sample number(s): 6475866-6475869	BKG: P477491		8.72	0	3
Batch number: 11335162401B Moisture Content by 160.3				Sample number(s): 6475866-6475869	BKG: P463909		7.6 7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11323WAU026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475870	104	98	111
Blank	106	97	102
LCS	111	99	98
LCSD	116	100	102
Limits:	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475866	88	91	90	81	82	81
6475867	93	96	89	83	88	83
6475868	91	94	86	83	84	84
6475869	85	88	78	78	82	80
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59
MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Surrogate Quality Control

6475866	95	87	93
6475867	125	76	94
6475868	100	89	94
6475869	75	79	89
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89

Limits: 40-130 45-130 45-135

Analysis Name: 5b Semivolatiles by EPA 8270C
Batch number: 11327WAA026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475870	68	44	98	87	90	85
Blank	60	39	91	85	88	89
LCS	75	50	97	87	92	85
LCSD	74	49	101	91	94	88

Limits: 20-130 20-120 30-130 40-130 45-130 45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6475866	102	114
6475867	99	109
6475868	100	110
6475869	101	115
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112

Limits: 53-139 45-120

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113250021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6475870	112	120
Blank	106	105
LCS	99	111
LCSD	100	104

Limits: 30-150 45-120

*- Outside of specification

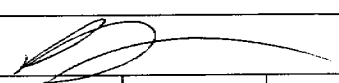
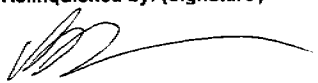
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

13013 1277303 6475866-70

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary									
NOTES: *Primary Analyses as Indicated on sample labels **Secondary Analyses as Indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																Other Instructions and Notes	
Samplers Signatures: 																	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)			
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-SS Sleeve			X	X								
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-SS Sleeve			X	X								
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-SS Sleeve			X	X								
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-SS Sleeve			X	X								
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)														
	11/17/2011 / 1630																
Received by: (Signature)	Date/Time		Airbill No.(s)														
			8767 9857 4960														
Laboratory:																	
Lancaster Laboratories, Inc.																	
															11/18/11 0945 0925		

AMO
11/18/11

13013

1277303

6475866-70

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 15 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SAB) & Subarea 7 (SAT) also report Tetralin under EPA Method 8270C.							*Metals EPA 80106/2005/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCP's EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7189	*pH EPA 9045C/6040B	*VOCs EPA 8260B \$	*1,4-Dioxane EPA 8260SIM \$	*TPH-GRO EPA 8015B \$	*TPH-EPI EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*1,4-NDMA EPA 1625C	*Emergicals EPA 0330A	*Cyanide EPA 9012B	*Triphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	5-1 liter ambers			X	X	X																	
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X														
EB-SA8S-SB-111711	11.17.11	1400	WATER	HNO3	1-500 mL poly	X																					
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																							
		11/17/2011 / 1630																									
Received by: (Signature)		Date/Time		Airbill No.(s)																							
				8767 9857 4960																							
						Laboratory: Lancaster Laboratories, Inc. 11/18/11 0945 0925 AMO 11/18/11																					

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/18/2011
Group Number: 1277304
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-010-SA8S-SB-4.0-5.0 Soil
SL-010-SA8S-SB-8.5-9.5 Soil
SL-008-SA8S-SB-2.0-3.0 Soil
SL-011-SA8S-SB-4.0-5.0 Soil
EB-SA8S-SB-111711 Water

Lancaster Labs (LLI)

6475871
6475872
6475873
6475874
6475875

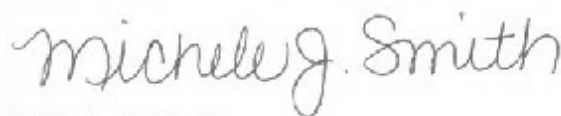
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	13.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0430 U	0.0430	1.13	1
11031	12378-PeCDD	40321-76-4	0.0375 JQ	0.0316	5.65	1
11031	123478-HxCDD	39227-28-6	0.0252 JBQ	0.0236	5.65	1
11031	123678-HxCDD	57653-85-7	0.0682 JB	0.0240	5.65	1
11031	123789-HxCDD	19408-74-3	0.0696 JB	0.0225	5.65	1
11031	1234678-HpCDD	35822-46-9	0.664 JBQ	0.0256	5.65	1
11031	OCDD	3268-87-9	3.28 JB	0.0244	11.3	1
11031	2378-TCDF	51207-31-9	0.0471 JQ	0.0374	1.13	1
11031	12378-PeCDF	57117-41-6	0.0336 JBQ	0.0184	5.65	1
11031	23478-PeCDF	57117-31-4	0.101 JB	0.0179	5.65	1
11031	123478-HxCDF	70648-26-9	0.0574 JBQ	0.0170	5.65	1
11031	123678-HxCDF	57117-44-9	0.0414 JBQ	0.0146	5.65	1
11031	123789-HxCDF	72918-21-9	0.0185 U	0.0185	5.65	1
11031	234678-HxCDF	60851-34-5	0.0483 JBQ	0.0151	5.65	1
11031	1234678-HpCDF	67562-39-4	0.158 JBQ	0.0115	5.65	1
11031	1234789-HpCDF	55673-89-7	0.0486 JBQ	0.0182	5.65	1
11031	OCDF	39001-02-0	0.292 JB	0.0307	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 16:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0412 U	0.0412	1.12	1
11031	12378-PeCDD	40321-76-4	0.0341 U	0.0341	5.60	1
11031	123478-HxCDD	39227-28-6	0.0233 JBQ	0.0226	5.60	1
11031	123678-HxCDD	57653-85-7	0.0225 U	0.0225	5.60	1
11031	123789-HxCDD	19408-74-3	0.0397 JB	0.0226	5.60	1
11031	1234678-HpCDD	35822-46-9	0.352 JB	0.0235	5.60	1
11031	OCDD	3268-87-9	1.20 JB	0.0184	11.2	1
11031	2378-TCDF	51207-31-9	0.0390 JQ	0.0332	1.12	1
11031	12378-PeCDF	57117-41-6	0.0157 U	0.0157	5.60	1
11031	23478-PeCDF	57117-31-4	0.0595 JBQ	0.0159	5.60	1
11031	123478-HxCDF	70648-26-9	0.0559 JB	0.0176	5.60	1
11031	123678-HxCDF	57117-44-9	0.0146 U	0.0146	5.60	1
11031	123789-HxCDF	72918-21-9	0.0443 JBQ	0.0160	5.60	1
11031	234678-HxCDF	60851-34-5	0.0427 JBQ	0.0123	5.60	1
11031	1234678-HpCDF	67562-39-4	0.0906 JBQ	0.0108	5.60	1
11031	1234789-HpCDF	55673-89-7	0.0242 JB	0.0162	5.60	1
11031	OCDF	39001-02-0	0.174 JB	0.0302	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 17:09	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0387 U	0.0387	1.07	1
11031	12378-PeCDD	40321-76-4	0.0330 U	0.0330	5.36	1
11031	123478-HxCDD	39227-28-6	0.0225 U	0.0225	5.36	1
11031	123678-HxCDD	57653-85-7	0.0356 JBQ	0.0228	5.36	1
11031	123789-HxCDD	19408-74-3	0.0233 U	0.0233	5.36	1
11031	1234678-HpCDD	35822-46-9	0.306 JB	0.0215	5.36	1
11031	OCDD	3268-87-9	1.01 JB	0.0248	10.7	1
11031	2378-TCDF	51207-31-9	0.0305 U	0.0305	1.07	1
11031	12378-PeCDF	57117-41-6	0.0295 JB	0.0144	5.36	1
11031	23478-PeCDF	57117-31-4	0.0712 JBQ	0.0141	5.36	1
11031	123478-HxCDF	70648-26-9	0.0205 JBQ	0.0140	5.36	1
11031	123678-HxCDF	57117-44-9	0.0469 JBQ	0.0117	5.36	1
11031	123789-HxCDF	72918-21-9	0.0215 JBQ	0.0136	5.36	1
11031	234678-HxCDF	60851-34-5	0.0267 JBQ	0.0110	5.36	1
11031	1234678-HpCDF	67562-39-4	0.108 JBQ	0.0102	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0293 JB	0.0163	5.36	1
11031	OCDF	39001-02-0	0.0850 JB	0.0302	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/18/2011 09:25

Suite 210

Reported: 12/02/2011 09:08

Chantilly VA 20151

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 18:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0415 U	0.0415	1.11	1
11031	12378-PeCDD	40321-76-4	0.0325 U	0.0325	5.55	1
11031	123478-HxCDD	39227-28-6	0.0398 JB	0.0224	5.55	1
11031	123678-HxCDD	57653-85-7	0.0757 JB	0.0228	5.55	1
11031	123789-HxCDD	19408-74-3	0.0462 JBQ	0.0228	5.55	1
11031	1234678-HpCDD	35822-46-9	0.408 JB	0.0235	5.55	1
11031	OCDD	3268-87-9	1.60 JB	0.0268	11.1	1
11031	2378-TCDF	51207-31-9	0.0609 JQ	0.0362	1.11	1
11031	12378-PeCDF	57117-41-6	0.0854 JBQ	0.0172	5.55	1
11031	23478-PeCDF	57117-31-4	0.0337 JB	0.0167	5.55	1
11031	123478-HxCDF	70648-26-9	0.0367 JBQ	0.0167	5.55	1
11031	123678-HxCDF	57117-44-9	0.0348 JBQ	0.0138	5.55	1
11031	123789-HxCDF	72918-21-9	0.0171 U	0.0171	5.55	1
11031	234678-HxCDF	60851-34-5	0.0432 JBQ	0.0143	5.55	1
11031	1234678-HpCDF	67562-39-4	0.0614 JBQ	0.0102	5.55	1
11031	1234789-HpCDF	55673-89-7	0.0575 JBQ	0.0171	5.55	1
11031	OCDF	39001-02-0	0.178 JB	0.0327	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 19:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475875
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

DB117 SDG#: DX155-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.200 U	0.200	2.09	1
10915	12378-PeCDD	40321-76-4	0.347 JQ	0.248	10.5	1
10915	123478-HxCDD	39227-28-6	0.362 JBQ	0.188	10.5	1
10915	123678-HxCDD	57653-85-7	0.199 JBQ	0.186	10.5	1
10915	123789-HxCDD	19408-74-3	0.416 JBQ	0.178	10.5	1
10915	1234678-HpCDD	35822-46-9	2.67 JBQ	0.221	10.5	1
10915	OCDD	3268-87-9	6.54 JBQ	0.226	20.9	1
10915	2378-TCDF	51207-31-9	0.155 U	0.155	2.09	1
10915	12378-PeCDF	57117-41-6	0.181 JBQ	0.115	10.5	1
10915	23478-PeCDF	57117-31-4	0.432 JBQ	0.0966	10.5	1
10915	123478-HxCDF	70648-26-9	0.384 JBQ	0.147	10.5	1
10915	123678-HxCDF	57117-44-9	0.473 JBQ	0.150	10.5	1
10915	123789-HxCDF	72918-21-9	0.276 JQ	0.103	10.5	1
10915	234678-HxCDF	60851-34-5	0.655 JBQ	0.0926	10.5	1
10915	1234678-HpCDF	67562-39-4	2.66 JB	0.133	10.5	1
10915	1234789-HpCDF	55673-89-7	0.168 JBQ	0.123	10.5	1
10915	OCDF	39001-02-0	1.73 JBQ	0.337	20.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	66	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	46	26 - 152
13C12-123678-HxCDF	46	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	49	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475875
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

DB117 SDG#: DX155-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326001	11/24/2011 01:59	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11326001	11/22/2011 08:30	Deborah M Zimmerman	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6475871-6475874				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326001	Sample number(s): 6475875								
2378-TCDD	0.426 U	0.426	2.00	pg/l	112		67-158		
12378-PeCDD	0.358 U	0.358	10.0	pg/l	109		70-142		
123478-HxCDD	0.486 J	0.307	10.0	pg/l	101		70-164		
123678-HxCDD	0.713 J	0.312	10.0	pg/l	99		76-134		
123789-HxCDD	0.574 J	0.314	10.0	pg/l	104		64-162		
1234678-HpCDD	4.66 J	0.349	10.0	pg/l	101		70-140		
OCDD	7.85 J	0.379	20.0	pg/l	95		78-144		
2378-TCDF	0.234 U	0.234	2.00	pg/l	100		75-158		
12378-PeCDF	0.553 J	0.175	10.0	pg/l	107		80-134		
23478-PeCDF	0.487 J	0.150	10.0	pg/l	99		68-160		
123478-HxCDF	0.618 J	0.213	10.0	pg/l	100		72-134		
123678-HxCDF	0.222 J	0.200	10.0	pg/l	102		84-130		
123789-HxCDF	0.220 U	0.220	10.0	pg/l	102		78-130		
234678-HxCDF	0.306 J	0.190	10.0	pg/l	100		70-156		
1234678-HpCDF	1.94 J	0.159	10.0	pg/l	93		82-122		
1234789-HpCDF	0.617 J	0.191	10.0	pg/l	98		78-138		
OCDF	1.85 J	0.505	20.0	pg/l	99		63-170		

Batch number: 11326002	Sample number(s): 6475871-6475874								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11335162401B Moisture Content by 160.3									
Sample number(s): 6475871-6475874						BKG: P463909 7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11326001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6475875	68	75	46	46	71	76
Blank	50	56	48	48	51	54
OPR	60	71	65	67	67	79
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6475875	49	68	64	68	66	67
Blank	48	47	45	50	46	50
OPR	69	71	73	63	64	66
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6475875	66	66	64	78	74	
Blank	48	49	47	63	55	
OPR	65	68	74	69	71	
Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6475871	73	80	69	80	77	75
6475872	71	77	54	69	78	68
6475873	67	74	60	73	73	72
6475874	66	70	61	72	71	69
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6475871	97	75	83	81	83	84
6475872	90	70	75	82	83	86
6475873	94	72	79	77	81	84
6475874	91	70	75	74	79	79
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6475871	84	90	101	73	86	
6475872	84	90	99	70	87	
6475873	81	91	98	68	81	
6475874	78	85	93	65	76	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

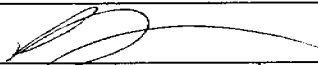
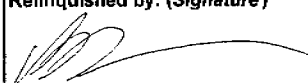
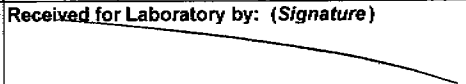
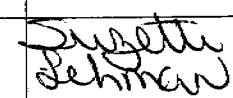
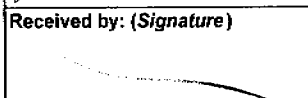
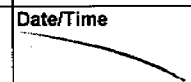
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1277304 6475871-25

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary												
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.																			Other Instructions and Notes
Samplers Signatures: 						*Metals EPA 601060208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)					
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-SS Sleeve			X	X										
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X						
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-SS Sleeve			X	X										
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X						
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-SS Sleeve			X	X										
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X						
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-SS Sleeve			X	X										
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X						
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)										Laboratory:						
	11/17/2011 / 1630												Lancaster Laboratories, Inc.						
Received by: (Signature)	Date/Time		Airbill No.(s)										11/18/11 0945 0925						
			8767 9857 4960										ANO 11/18/11						

13013 1277304 6475871-75

CHAIN OF CUSTODY RECORD

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 18 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraIn under EPA Method 8270C.						*Metals EPA 80106/8270A/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCTs EPA 8062	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9445C/9040B	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EFH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*n-NDMA EPA 1825C	*Enargitox EPA 8330A	*Cyanide EPA 8012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	
Samplers Signatures:																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	5-1 liter ambers			X	X	X																
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X													
EB-SA8S-SB-111711	11.17.11	1400	WATER	HNO3	1-500 mL poly	X																				
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)																							Laboratory:
	11/17/2011 / 1630																									Lancaster Laboratories, Inc.
Received by: (Signature)	Date/Time		Airbill No.(s)																							11/18/11 0925 ANO 11/18/11
			8767 9857 4960																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/19/2011
Group Number: 1277528
SDG: DE289
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-001-SA8S-SB-4.0-5.0 Soil
SL-012-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6477490
6477491

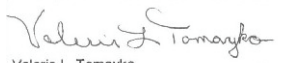
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.49 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,100	6.63	21.9	1
07914	Boron	7440-42-8	9.10	0.395	5.48	1
01650	Calcium	7440-70-2	122,000	13.7	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	17,700	2.86	21.9	1
01656	Lithium	7439-93-2	17.5	0.68	2.2	1
01657	Magnesium	7439-95-4	5,600	0.483	11.0	1
06958	Manganese	7439-96-5	334	0.0395	0.548	1
10145	Phosphorus	7723-14-0	420	0.384	11.0	1
01662	Potassium	7440-09-7	3,220	12.4	54.8	1
01667	Sodium	7440-23-5	139	6.52	110	1
07968	Strontium	7440-24-6	230	0.0274	0.548	1
06969	Tin	7440-31-5	2.85 J	0.351	11.0	1
06970	Titanium	7440-32-6	871	0.0779	1.10	1
10146	Zirconium	7440-67-7	6.08	0.504	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0812 U	0.0812	0.219	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.88	0.0877	0.439	2
06126	Barium	7440-39-3	88.9	0.116	0.439	2
06127	Beryllium	7440-41-7	0.660	0.0175	0.110	2
06128	Cadmium	7440-43-9	0.394	0.0483	0.110	2
06131	Chromium	7440-47-3	35.3	0.132	0.439	2
06132	Cobalt	7440-48-4	8.59	0.0219	0.110	2
06133	Copper	7440-50-8	12.7	0.0877	0.439	2
06135	Lead	7439-92-1	7.63	0.0112	0.219	2
06138	Molybdenum	7439-98-7	0.193	0.0548	0.110	2
06139	Nickel	7440-02-0	15.2	0.110	0.439	2
06141	Selenium	7782-49-2	0.166 J	0.0636	0.439	2
06142	Silver	7440-22-4	0.0156 U	0.0156	0.110	2
06145	Thallium	7440-28-0	0.284	0.0329	0.110	2
06148	Vanadium	7440-62-2	59.9	0.0241	0.110	2
06149	Zinc	7440-66-6	56.5	0.614	3.29	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.90 U	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.35 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.77	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 14:19	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/29/2011 00:06	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113270015A	11/30/2011 09:37	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113270015A	11/23/2011 19:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:47	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:35	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11333621201A	11/29/2011 13:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11333621202A	12/02/2011 16:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 20:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11333621201A	11/29/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11333621202A	11/29/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	19	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	23	J 19	370	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	23	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	17,000	6.59	21.8	1
07914	Boron	7440-42-8	7.11	0.392	5.45	1
01650	Calcium	7440-70-2	116,000	5.45	43.6	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	26,700	2.84	21.8	1
01656	Lithium	7439-93-2	18.4	0.68	2.2	1
01657	Magnesium	7439-95-4	5,770	0.479	10.9	1
06958	Manganese	7439-96-5	271	0.0392	0.545	1
10145	Phosphorus	7723-14-0	373	0.381	10.9	1
01662	Potassium	7440-09-7	2,800	12.3	54.5	1
01667	Sodium	7440-23-5	144	6.48	109	1
07968	Strontium	7440-24-6	197	0.0272	0.545	1
06969	Tin	7440-31-5	2.82 J	0.349	10.9	1
06970	Titanium	7440-32-6	711	0.0774	1.09	1
10146	Zirconium	7440-67-7	5.71	0.501	5.45	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.106 J	0.0806	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	10.9	0.0872	0.436	2
06126	Barium	7440-39-3	95.8	0.116	0.436	2
06127	Beryllium	7440-41-7	0.573	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.262	0.0479	0.109	2
06131	Chromium	7440-47-3	33.5	0.131	0.436	2
06132	Cobalt	7440-48-4	9.46	0.0218	0.109	2
06133	Copper	7440-50-8	13.4	0.0872	0.436	2
06135	Lead	7439-92-1	7.95	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.317	0.0545	0.109	2
06139	Nickel	7440-02-0	16.0	0.109	0.436	2
06141	Selenium	7782-49-2	0.236 J	0.0632	0.436	2
06142	Silver	7440-22-4	0.0155 U	0.0155	0.109	2
06145	Thallium	7440-28-0	0.321	0.0327	0.109	2
06148	Vanadium	7440-62-2	57.3	0.0240	0.109	2
06149	Zinc	7440-66-6	54.5	0.610	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.72	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/11/2011 16:33	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/29/2011 00:40	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113270015A	11/30/2011 10:33	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113270015A	11/23/2011 19:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:55	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:51	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:37	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11333621201A	11/29/2011 13:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11333621202A	12/02/2011 17:39	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 20:15	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11333621201A	11/29/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11333621202A	11/29/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11326SLE026	Sample number(s): 6477490-6477491								
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	97		75-117		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Analysis Name	Blank Result		Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
4-Nitroaniline	67	U	67.	170	ug/kg	65		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	90		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170		170.	500	ug/kg	101		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026 Sample number(s): 6477490-6477491										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	105		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	95		72-119		
Batch number: 113270015A Sample number(s): 6477490-6477491										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	70	67	36-106	3	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	88		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	102		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 113241026002A Sample number(s): 6477490-6477491										
Antimony	0.0718	U	0.0718	0.194	mg/kg	70		40-227		
Arsenic	0.0777	U	0.0777	0.388	mg/kg	96		83-111		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Beryllium	0.0155 U	0.0155	0.0971	mg/kg	97		84-112		
Cadmium	0.0427 U	0.0427	0.0971	mg/kg	99		83-111		
Chromium	0.117 U	0.117	0.388	mg/kg	104		77-123		
Cobalt	0.0194 U	0.0194	0.0971	mg/kg	99		85-114		
Copper	0.0777 U	0.0777	0.388	mg/kg	99		81-110		
Lead	0.0099 U	0.0099	0.194	mg/kg	99		84-112		
Nickel	0.0971 U	0.0971	0.388	mg/kg	102		81-110		
Silver	0.0138 U	0.0138	0.0971	mg/kg	101		83-112		
Thallium	0.0291 U	0.0291	0.0971	mg/kg	99		82-112		
Vanadium	0.0214 U	0.0214	0.0971	mg/kg	99		76-110		
Zinc	0.689 J	0.544	2.91	mg/kg	99		82-110		
Batch number: 113241026002B	Sample number(s): 6477490-6477491								
Selenium	0.0563 U	0.0563	0.388	mg/kg	99		79-110		
Batch number: 113241026002C	Sample number(s): 6477490-6477491								
Molybdenum	0.0485 U	0.0485	0.0971	mg/kg	96		80-110		
Batch number: 113241026002D	Sample number(s): 6477490-6477491								
Barium	0.103 U	0.103	0.388	mg/kg	98		83-110		
Batch number: 113245708004	Sample number(s): 6477490-6477491								
Aluminum	5.93 U	5.93	19.6	mg/kg	79		40-127		
Boron	0.353 U	0.353	4.90	mg/kg	97		83-110		
Calcium	6.46 J	2.45	19.6	mg/kg	100		81-110		
Iron	3.25 J	2.56	19.6	mg/kg	84		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	2.95 J	0.431	9.80	mg/kg	85		63-116		
Manganese	0.0588 J	0.0353	0.490	mg/kg	97		85-116		
Phosphorus	1.31 J	0.343	9.80	mg/kg	102		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	96		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	96		76-110		
Strontium	0.0245 U	0.0245	0.490	mg/kg	98		84-110		
Tin	1.21 J	0.314	9.80	mg/kg	98		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	82		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	103		80-120		
Batch number: 113245711003	Sample number(s): 6477490-6477491								
Mercury	0.0068 U	0.0068	0.0972	mg/kg	92		83-119		
Batch number: 11332243201A	Sample number(s): 6477490-6477491								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11333621201A	Sample number(s): 6477490-6477491								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	96		90-110		
Batch number: 11333621202A	Sample number(s): 6477490-6477491								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	107		85-115		
Batch number: 11332039401B	Sample number(s): 6477490-6477491								
17a pH by 9045C					100		95-105		
Batch number: 11335162401B	Sample number(s): 6477490-6477491								
Moisture Content by 160.3					99		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11326SLE026 Sample number(s): 6477490-6477491 UNSPK: P473891									
Aniline	55	67	18-116	19	30				
Benzidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
bis(2-Ethylhexyl)phthalate	67	77	63-122	14	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				
Batch number: 11326SLG026 Sample number(s): 6477490-6477491 UNSPK: P473891									
Acenaphthene	94	91	63-105	3	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthylene	97	88	67-114	9	30				
Anthracene	98	93	73-115	4	30				
Benzo(a)anthracene	96	94	59-128	2	30				
Benzo(a)pyrene	95	93	58-142	2	30				
Benzo(b)fluoranthene	102	101	54-163	0	30				
Benzo(g,h,i)perylene	82	79	33-141	3	30				
Benzo(k)fluoranthene	92	90	57-153	2	30				
Butylbenzylphthalate	105	103	57-173	2	30				
Di-n-butylphthalate	110	107	65-148	2	30				
Chrysene	95	93	67-123	2	30				
Dibenz(a,h)anthracene	88	86	22-133	2	30				
Diethylphthalate	108	105	70-136	3	30				
Dimethylphthalate	105	107	74-118	2	30				
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30				
Fluoranthene	105	102	51-149	3	30				
Fluorene	99	95	66-122	4	30				
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30				
1-Methylnaphthalene	84	80	72-123	4	30				
2-Methylnaphthalene	80	77	64-103	3	30				
Naphthalene	86	86	61-102	1	30				
N-Nitrosodimethylamine	34*	34*	48-113	2	30				
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				

Batch number: 113270015A

Sample number(s): 6477490-6477491 UNSPK: 6477490

PCB-1016	75	77	29-146	3	50
PCB-1260	83	85	39-149	2	50

Batch number: 113241026002A

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866

Antimony	17*	24*	75-125	21*	20	0.170 J	0.251	38* (1)	20
Arsenic	120 (2)	315 (2)	75-125	27*	20	9.95	19.1	63*	20
Beryllium	99	141*	75-125	18	20	0.842	1.20	35*	20
Cadmium	113	133*	75-125	13	20	0.170	0.166	3 (1)	20
Chromium	133*	213*	75-125	18	20	26.3	47.5	57*	20
Cobalt	116	148*	75-125	20	20	11.1	22.0	66*	20
Copper	123	235*	75-125	22*	20	32.1	66.3	70*	20
Lead	132 (2)	322 (2)	75-125	26*	20	14.6	27.7	62*	20
Nickel	133*	227*	75-125	23*	20	21.7	44.2	68*	20
Silver	107	124	75-125	14	20	0.0245 J	0.0472 J	64* (1)	20
Thallium	114	149*	75-125	15	20	0.390	0.646	50* (1)	20
Vanadium	162 (2)	300 (2)	75-125	17	20	55.1	97.3	55*	20
Zinc	146 (2)	375 (2)	75-125	23*	20	72.3	144	66*	20

Batch number: 113241026002B

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866

Selenium	81	80	75-125	1	20	0.442	0.300 J	38* (1)	20

Batch number: 113241026002C

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866

Molybdenum	98	117	75-125	16	20	0.518	0.434	18 (1)	20

Batch number: 113241026002D

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866

Barium	146 (2)	388 (2)	75-125	21*	20	87.5	171	65*	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113245708004	Sample number(s): 6477490-6477491 UNSPK: P467994 BKG: P467994								
Aluminum	1838 (2)	1801 (2)	75-125	0	20	17,200	16,900	2	20
Boron	97	97	84-115	3	20	4.24 J	4.57 J	8 (1)	20
Calcium	166 (2)	180 (2)	75-125	2	20	4,310	4,290	0	20
Iron	1639 (2)	569 (2)	75-125	4	20	26,400	24,000	9	20
Lithium	99	98	82-114	2	20	31.1	29.0	7	20
Magnesium	376 (2)	385 (2)	75-125	1	20	7,400	6,950	6	20
Manganese	-1 (2)	137 (2)	75-125	21*	20	289	278	4	20
Phosphorus	115 (2)	111 (2)	75-125	0	20	514	491	5	20
Potassium	158*	155*	75-125	0	20	2,690	2,670	1	20
Sodium	98	99	75-125	3	20	151	198	27* (1)	20
Strontium	99	99	75-115	3	20	16.4	18.6	12	20
Tin	85	86	80-110	4	20	20.4	2.70 J	153* (1)	20
Titanium	430 (2)	424 (2)	75-125	1	20	967	999	3	20
Zirconium	99	99	81-110	3	20	6.90	7.27	5 (1)	20
Batch number: 113245711003	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
Mercury	97	99	65-135	4	20	0.0066 U	0.0070 U	0 (1)	20
Batch number: 11332243201A	Sample number(s): 6477490-6477491 UNSPK: P475869 BKG: P475869								
3a Cr VI by EPA 7199	99		75-125			1.3	0.43 J	100* (1)	20
Batch number: 11333621201A	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
11a Anions by 300.0 - Fluoride	96		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11333621202A	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
7a Perchlorate EPA 314.0	107		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11332039401B	Sample number(s): 6477490-6477491 BKG: 6477491								
17a pH by 9045C						8.72	8.72	0	3
Batch number: 11335162401B	Sample number(s): 6477490-6477491 BKG: P463909								
Moisture Content by 160.3						7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6477490	92	95	73	80	83	82
6477491	91	96	91	84	91	83
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Surrogate Quality Control

MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6477490	99	106	92
6477491	98	88	87
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89
Limits:	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113270015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6477490	95	105
6477491	90	100
Blank	88	103
LCS	91	106
LCSD	93	108
MS	75	100
MSD	83	94
Limits:	53-139	45-120

*- Outside of specification

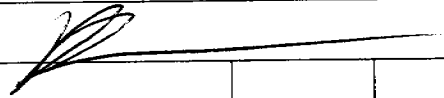
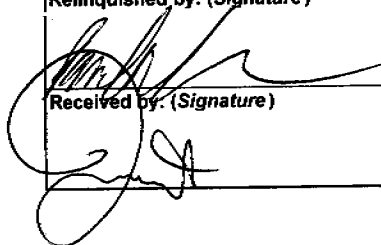
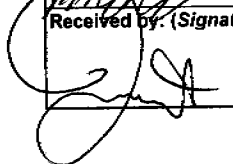
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct# 13013 Cup# 1277528

sample# 6477490-91

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary									
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																	Other Instructions and Notes
Samplers Signatures: 						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers												
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-SS Sleeve			X	X								
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-SS Sleeve			X	X								
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:			
		11/18/2011 / 1630												Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)													
		11/18/11 0950		8767 9857 4982													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/19/2011
Group Number: 1277529
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-001-SA8S-SB-4.0-5.0 Soil
SL-012-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6477492
6477493

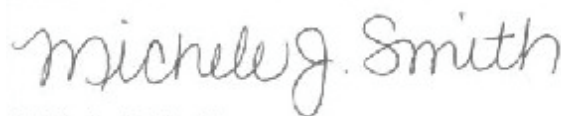
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0547 JQ	0.0372	1.12	1
11031	12378-PeCDD	40321-76-4	0.0784 JQ	0.0306	5.58	1
11031	123478-HxCDD	39227-28-6	0.0477 JB	0.0185	5.58	1
11031	123678-HxCDD	57653-85-7	0.0609 JBQ	0.0187	5.58	1
11031	123789-HxCDD	19408-74-3	0.0531 JBQ	0.0195	5.58	1
11031	1234678-HpCDD	35822-46-9	0.334 JBQ	0.0189	5.58	1
11031	OCDD	3268-87-9	0.761 JBQ	0.0224	11.2	1
11031	2378-TCDF	51207-31-9	0.0395 JQ	0.0260	1.12	1
11031	12378-PeCDF	57117-41-6	0.106 JB	0.0153	5.58	1
11031	23478-PeCDF	57117-31-4	0.107 JB	0.0148	5.58	1
11031	123478-HxCDF	70648-26-9	0.105 JB	0.0124	5.58	1
11031	123678-HxCDF	57117-44-9	0.0364 JBQ	0.00996	5.58	1
11031	123789-HxCDF	72918-21-9	0.0227 JB	0.0138	5.58	1
11031	234678-HxCDF	60851-34-5	0.0599 JBQ	0.0101	5.58	1
11031	1234678-HpCDF	67562-39-4	0.0761 JB	0.00694	5.58	1
11031	1234789-HpCDF	55673-89-7	0.0133 JBQ	0.0120	5.58	1
11031	OCDF	39001-02-0	0.145 JB	0.0342	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	99	28 - 130
13C12-123789-HxCDD	95	28 - 130
13C12-1234678-HpCDD	101	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	107	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 19:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0383 U	0.0383	1.10	1
11031	12378-PeCDD	40321-76-4	0.0619 JQ	0.0334	5.52	1
11031	123478-HxCDD	39227-28-6	0.0292 JBQ	0.0207	5.52	1
11031	123678-HxCDD	57653-85-7	0.0205 U	0.0205	5.52	1
11031	123789-HxCDD	19408-74-3	0.0428 JB	0.0195	5.52	1
11031	1234678-HpCDD	35822-46-9	0.225 JBQ	0.0212	5.52	1
11031	OCDD	3268-87-9	0.588 JB	0.0223	11.0	1
11031	2378-TCDF	51207-31-9	0.0343 JQ	0.0301	1.10	1
11031	12378-PeCDF	57117-41-6	0.0756 JB	0.0158	5.52	1
11031	23478-PeCDF	57117-31-4	0.113 JB	0.0157	5.52	1
11031	123478-HxCDF	70648-26-9	0.0423 JBQ	0.0160	5.52	1
11031	123678-HxCDF	57117-44-9	0.0165 JB	0.0128	5.52	1
11031	123789-HxCDF	72918-21-9	0.0401 JB	0.0162	5.52	1
11031	234678-HxCDF	60851-34-5	0.0570 JBQ	0.0119	5.52	1
11031	1234678-HpCDF	67562-39-4	0.0805 JB	0.00853	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0159 JBQ	0.0147	5.52	1
11031	OCDF	39001-02-0	0.161 JB	0.0338	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/19/2011 09:50

Suite 210

Reported: 12/02/2011 09:10

Chantilly VA 20151

X5519 SDG#: DX155-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 20:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:10 AM

Group Number: 1277529

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6477492-6477493				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6477492-6477493								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6477492-6477493					BKG: P463909 7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:10 AM

Group Number: 1277529

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6477492	76	85	70	84	87	77
6477493	72	72	58	75	74	69
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6477492	107	78	80	93	93	99
6477493	99	71	76	80	84	88
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6477492	95	101	106	74	94	
6477493	86	94	102	67	81	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

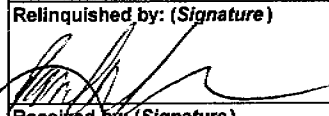
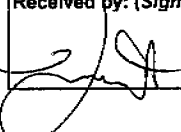
(2) The unspiked result was more than four times the spike added.

acct#13013

Ap#1277529

sample# 6477492-93

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 60106020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)		
Samplers Signatures:																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-SS Sleeve			X	X							
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-SS Sleeve			X	X							
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)				Laboratory:								
		11/18/2011 / 1630						Lancaster Laboratories, Inc.								
Received by: (Signature)		Date/Time		Airbill No.(s)												
		11/18/11 09150		8767 9857 4982												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 29, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/02/2011

Group Number: 1279187

SDG: DE291

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
DUP17-SA6-QC-120111 Soil	6487688
SL-023-SA8S-SB-4.0-5.0 Soil	6487689
SL-023-SA8S-SB-9.0-10.0 Soil	6487690
SL-022-SA8S-SB-4.0-5.0 Soil	6487691
SL-022-SA8S-SB-8.0-9.0 Soil	6487692
EB-SA6-SB-120111 Water	6487693

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC

CDM Federal Services Program

Attn: Todd Burgess

COPY TO

1 COPY TO

Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Chad A. Moline
Group Leader

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	18	U 18	180		1
04688	Acenaphthylene	208-96-8	18	U 18	180		1
04688	Aniline	62-53-3	180	U 180	540		1
04688	Anthracene	120-12-7	26	J 18	180		1
04688	Benziidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	18	U 18	180		1
04688	Benzo(a)pyrene	50-32-8	21	J 18	180		1
04688	Benzo(b)fluoranthene	205-99-2	32	J 18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	83	J 18	180		1
04688	Benzo(k)fluoranthene	207-08-9	18	U 18	180		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Chrysene	218-01-9	29	J 18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	18	U 18	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	Diethylphthalate	84-66-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	Dimethylphthalate	131-11-3	18	U 18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	34	J 18	360		1
04688	Fluoranthene	206-44-0	18	U 18	180		1
04688	Fluorene	86-73-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	50	J 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	18	U 18	180		1
04688	2-Methylnaphthalene	91-57-6	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	18	U 18	180		1
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitrosodimethylamine	62-75-9	36	U 36	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	18	U 18	180		1
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenanthrene	85-01-8	18	U 18	180		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Pyrene	129-00-0	18	U 18	180		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.7	U 4.7	9.7		1
10401	2,4-DB	94-82-6	0.67	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	140	J 82	270		1
10401	MCPP (Mecoprop)	93-65-2	81	U 81	270		1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18		1
10401	2,4,5-TP	93-72-1	0.096	J 0.081	0.18		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071	U 0.071	0.18		1
01363	Alpha BHC	319-84-6	0.037	U 0.037	0.18		1
01363	Beta BHC	319-85-7	0.065	U 0.065	0.18		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.86 U	0.86	3.7		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37		1
01363	p,p-DDE	72-55-9	0.071 U	0.071	0.37		1
01363	p,p-DDT	50-29-3	0.27 J	0.071	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.21 J	0.071	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.10 J	0.071	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37		1
01363	Endrin	72-20-8	0.071 U	0.071	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.24 J	0.071	0.37		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37		1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.071 U	0.071	0.37		1
01363	Toxaphene	8001-35-2	9.9 U	9.9	9.9		1
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.							
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	7.4	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	6.6	0.36	1.8		1
10225	PCB-1260	11096-82-5	13	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540		1
10501	Isopropanol	67-63-0	110 U	110	540		1
10501	Methanol	67-56-1	130 J	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	4.3	U	4.3	13		10
10199	EFH (C15-C20)	n.a.	4.3	U	4.3	13		10
10199	EFH (C21-C30)	n.a.	60		4.3	13		10
10199	EFH (C30 - C40)	n.a.	260		4.3	13		10
10199	EFH (C8-C11)	n.a.	4.3	U	4.3	13		10
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,000		6.41	21.2		1
07914	Boron	7440-42-8	4.71	J	0.382	5.30		1
01650	Calcium	7440-70-2	4,030		2.65	21.2		1
01654	Iron	7439-89-6	19,900		2.77	21.2		1
01656	Lithium	7439-93-2	20.3		0.66	2.1		1
01657	Magnesium	7439-95-4	4,380		0.466	10.6		1
06958	Manganese	7439-96-5	277		0.0382	0.530		1
10145	Phosphorus	7723-14-0	424		0.371	10.6		1
01662	Potassium	7440-09-7	2,470		12.0	53.0		1
01667	Sodium	7440-23-5	215		6.31	106		1
07968	Strontium	7440-24-6	24.1		0.0265	0.530		1
06969	Tin	7440-31-5	2.46	J	0.339	10.6		1
06970	Titanium	7440-32-6	975		0.0753	1.06		1
10146	Zirconium	7440-67-7	3.08	J	0.488	5.30		1
		SW-846 6020	mg/kg		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0881	J	0.0800	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	4.74		0.0865	0.432		2
06126	Barium	7440-39-3	104		0.115	0.432		2
06127	Beryllium	7440-41-7	0.678		0.0173	0.108		2
06128	Cadmium	7440-43-9	0.208		0.0476	0.108		2
06131	Chromium	7440-47-3	21.8		0.130	0.432		2
06132	Cobalt	7440-48-4	7.02		0.0216	0.108		2
06133	Copper	7440-50-8	12.1		0.0865	0.432		2
06135	Lead	7439-92-1	11.6		0.0110	0.216		2
06138	Molybdenum	7439-98-7	2.22		0.0541	0.108		2
06139	Nickel	7440-02-0	13.9		0.108	0.432		2
06141	Selenium	7782-49-2	0.733		0.0627	0.432		2
06142	Silver	7440-22-4	0.0398	J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.292		0.0324	0.108		2
06148	Vanadium	7440-62-2	42.4		0.0238	0.108		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
06149	Zinc	SW-846 6020 7440-66-6	mg/kg 126	mg/kg 0.605	mg/kg 3.24	mg/kg	2
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 1.62	mg/kg 0.0377	mg/kg 0.537	mg/kg	5
Wet Chemistry							
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 1.9	mg/kg 0.85	mg/kg 1.1	mg/kg	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 9.7 U	ug/kg 9.7	ug/kg 32.4	ug/kg	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.28 J	mg/kg 0.22	mg/kg 1.1	mg/kg	1
05895	16a Cyanide by 9012B	SW-846 9012B 57-12-5	mg/kg 0.19 U	mg/kg 0.19	mg/kg 0.52	mg/kg	1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.75	0.0100	0.0100		1
Wet Chemistry							
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 7.5	% 0.50	% 0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11337SLC026	12/11/2011 23:48	Holly Berry	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	113400037A	12/10/2011 06:23	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	113390023A	12/12/2011 23:54	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:07	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	113390023A	12/05/2011 18:30	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	113400037A	12/07/2011 07:30	Kerrie A Freeburn	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113360017A	12/05/2011 23:35	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113420018A	12/09/2011 01:36	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113390013A	12/06/2011 17:16	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113400014A	12/09/2011 12:44	Heather E Williams	10
11238	EFH Extraction - Soils	SW-846 3550B	1	113400014A	12/06/2011 18:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	113390013A	12/05/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113360017A	12/05/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113420018A	12/08/2011 17:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:03	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:42	Nelli S Markaryan	5
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/09/2011 23:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:08	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11339102201B	12/06/2011 18:38	Venia B McFadden	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11339102201B	12/05/2011 15:45	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75	U 0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	U 0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8	U 6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8	U 6.8	20		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8	U 6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8	U 6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.7	J 6.8	20		1
10138	Fluoranthene	206-44-0	0.75	U 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75	U 0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75	U 0.75	1.9		1
10138	Naphthalene	91-20-3	0.75	U 0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75	U 0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8	U 6.8	20		1
10138	Phenanthrene	85-01-8	0.75	U 0.75	1.9		1
10138	Pyrene	129-00-0	0.75	U 0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,900	6.67	22.1		1
07914	Boron	7440-42-8	11.3	0.397	5.52		1
01650	Calcium	7440-70-2	70,400	13.8	110		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,500	14.4	110		5
01656	Lithium	7439-93-2	34.1	0.68	2.2		1
01657	Magnesium	7439-95-4	9,040	0.485	11.0		1
06958	Manganese	7439-96-5	319	0.0397	0.552		1
10145	Phosphorus	7723-14-0	608	0.386	11.0		1
01662	Potassium	7440-09-7	4,040	12.5	55.2		1
01667	Sodium	7440-23-5	138	6.56	110		1
07968	Strontium	7440-24-6	128	0.0276	0.552		1
06969	Tin	7440-31-5	2.54 J	0.353	11.0		1
06970	Titanium	7440-32-6	1,290	0.0783	1.10		1
10146	Zirconium	7440-67-7	9.49	0.508	5.52		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.236	0.0801	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	14.7	0.0866	0.433		2
06126	Barium	7440-39-3	130	0.287	1.08		5
06127	Beryllium	7440-41-7	1.14	0.0173	0.108		2
06128	Cadmium	7440-43-9	0.326	0.0476	0.108		2
06131	Chromium	7440-47-3	57.9	0.130	0.433		2
06132	Cobalt	7440-48-4	22.6	0.0216	0.108		2
06133	Copper	7440-50-8	59.0	0.0866	0.433		2
06135	Lead	7439-92-1	26.8	0.0110	0.216		2
06138	Molybdenum	7439-98-7	0.315	0.0541	0.108		2
06139	Nickel	7440-02-0	44.6	0.108	0.433		2
06141	Selenium	7782-49-2	0.217 J	0.0628	0.433		2
06142	Silver	7440-22-4	0.0463 J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.760	0.0325	0.108		2
06148	Vanadium	7440-62-2	123	0.0238	0.108		2
06149	Zinc	7440-66-6	186	0.606	3.25		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.93	1.2		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.23	1.2		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.40	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:12	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:07	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 15:11	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/12/2011 06:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:39	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:02	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,300	6.57	21.7		1
07914	Boron	7440-42-8	9.40	0.391	5.43		1
01650	Calcium	7440-70-2	97,900	13.6	109		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,200	2.83	21.7		1
01656	Lithium	7439-93-2	26.7	0.67	2.2		1
01657	Magnesium	7439-95-4	6,940	0.478	10.9		1
06958	Manganese	7439-96-5	247	0.0391	0.543		1
10145	Phosphorus	7723-14-0	437	0.380	10.9		1
01662	Potassium	7440-09-7	3,320	12.3	54.3		1
01667	Sodium	7440-23-5	212	6.46	109		1
07968	Strontium	7440-24-6	172	0.0271	0.543		1
06969	Tin	7440-31-5	2.40 J	0.347	10.9		1
06970	Titanium	7440-32-6	822	0.0771	1.09		1
10146	Zirconium	7440-67-7	6.93	0.499	5.43		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0839 J	0.0803	0.217		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.97	0.0869	0.434		2
06126	Barium	7440-39-3	98.0	0.115	0.434		2
06127	Beryllium	7440-41-7	0.677	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.293	0.0478	0.109		2
06131	Chromium	7440-47-3	39.3	0.130	0.434		2
06132	Cobalt	7440-48-4	8.87	0.0217	0.109		2
06133	Copper	7440-50-8	15.2	0.0869	0.434		2
06135	Lead	7439-92-1	9.32	0.0111	0.217		2
06138	Molybdenum	7439-98-7	0.275	0.0543	0.109		2
06139	Nickel	7440-02-0	18.7	0.109	0.434		2
06141	Selenium	7782-49-2	0.453	0.0630	0.434		2
06142	Silver	7440-22-4	0.0276 J	0.0154	0.109		2
06145	Thallium	7440-28-0	0.287	0.0326	0.109		2
06148	Vanadium	7440-62-2	65.8	0.0239	0.109		2
06149	Zinc	7440-66-6	61.2	0.608	3.26		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.6	0.89	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.52	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	9.7	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:36	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:43	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:44	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:34	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:11	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:52	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9		1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20		1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	6.67	22.1		1
07914	Boron	7440-42-8	9.60	0.397	5.51		1
01650	Calcium	7440-70-2	102,000	13.8	110		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,000	2.88	22.1		1
01656	Lithium	7439-93-2	31.8	0.68	2.2		1
01657	Magnesium	7439-95-4	8,070	0.485	11.0		1
06958	Manganese	7439-96-5	298	0.0397	0.551		1
10145	Phosphorus	7723-14-0	444	0.386	11.0		1
01662	Potassium	7440-09-7	2,680	12.5	55.1		1
01667	Sodium	7440-23-5	106 J	6.56	110		1
07968	Strontium	7440-24-6	121	0.0276	0.551		1
06969	Tin	7440-31-5	2.48 J	0.353	11.0		1
06970	Titanium	7440-32-6	947	0.0783	1.10		1
10146	Zirconium	7440-67-7	7.88	0.507	5.51		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0824 U	0.0824	0.223		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.96	0.0891	0.445		2
06126	Barium	7440-39-3	88.3	0.118	0.445		2
06127	Beryllium	7440-41-7	0.759	0.0178	0.111		2
06128	Cadmium	7440-43-9	0.255	0.0490	0.111		2
06131	Chromium	7440-47-3	32.3	0.134	0.445		2
06132	Cobalt	7440-48-4	11.6	0.0223	0.111		2
06133	Copper	7440-50-8	22.7	0.0891	0.445		2
06135	Lead	7439-92-1	11.6	0.0114	0.223		2
06138	Molybdenum	7439-98-7	0.358	0.0557	0.111		2
06139	Nickel	7440-02-0	20.6	0.111	0.445		2
06141	Selenium	7782-49-2	0.239 J	0.0646	0.445		2
06142	Silver	7440-22-4	0.0190 J	0.0158	0.111		2
06145	Thallium	7440-28-0	0.328	0.0334	0.111		2
06148	Vanadium	7440-62-2	61.3	0.0245	0.111		2
06149	Zinc	7440-66-6	73.5	0.624	3.34		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 J	0.0077	0.109		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.90	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.63 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.36	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.1	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:08	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:21	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:03	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:38	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:15	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 22:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:51	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,300	6.81	22.5		1
07914	Boron	7440-42-8	13.0	0.405	5.63		1
01650	Calcium	7440-70-2	54,300	2.81	22.5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	38,800	14.7	113		5
01656	Lithium	7439-93-2	43.9	0.70	2.3		1
01657	Magnesium	7439-95-4	10,900	0.495	11.3		1
06958	Manganese	7439-96-5	303	0.0405	0.563		1
10145	Phosphorus	7723-14-0	500	0.394	11.3		1
01662	Potassium	7440-09-7	4,210	12.7	56.3		1
01667	Sodium	7440-23-5	149	6.69	113		1
07968	Strontium	7440-24-6	101	0.0281	0.563		1
06969	Tin	7440-31-5	2.57 J	0.360	11.3		1
06970	Titanium	7440-32-6	1,290	0.0799	1.13		1
10146	Zirconium	7440-67-7	8.60	0.518	5.63		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.109 J	0.0833	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.39	0.0900	0.450		2
06126	Barium	7440-39-3	110	0.119	0.450		2
06127	Beryllium	7440-41-7	0.816	0.0180	0.113		2
06128	Cadmium	7440-43-9	0.178	0.0495	0.113		2
06131	Chromium	7440-47-3	32.6	0.135	0.450		2
06132	Cobalt	7440-48-4	14.1	0.0225	0.113		2
06133	Copper	7440-50-8	28.7	0.0900	0.450		2
06135	Lead	7439-92-1	12.6	0.0115	0.225		2
06138	Molybdenum	7439-98-7	0.453	0.0563	0.113		2
06139	Nickel	7440-02-0	22.6	0.113	0.450		2
06141	Selenium	7782-49-2	0.128 J	0.0653	0.450		2
06142	Silver	7440-22-4	0.0160 U	0.0160	0.113		2
06145	Thallium	7440-28-0	0.414	0.0338	0.113		2
06148	Vanadium	7440-62-2	65.4	0.0248	0.113		2
06149	Zinc	7440-66-6	85.2	0.630	3.38		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.91	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.5	0.23	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.35	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:32	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:54	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:42	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:19	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201B	12/15/2011 22:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 01:15	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:05	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201B	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	6 U	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.954 J	0.544	1.09		1
The recovery of N-Nitrosodimethylamine was outside of QC limits in the LCSD. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.							
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	5		1
04678	Benzidine	92-87-5	22 U	22	65		1
04678	Benzoic acid	65-85-0	6 U	6	16		1
04678	Benzyl alcohol	100-51-6	5 U	5	16		1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	5		1
04678	Carbazole	86-74-8	1 U	1	5		1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	5		1
04678	4-Chloroaniline	106-47-8	1 U	1	5		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	5		1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	5		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	5		1
04678	2-Chloronaphthalene	91-58-7	2 U	2	5		1
04678	2-Chlorophenol	95-57-8	1 U	1	5		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	5		1
04678	Dibenzofuran	132-64-9	1 U	1	5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	5		1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	5		1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11		1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	16		1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	32		1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	5		1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	5		1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	5		1
04678	Hexachlorobenzene	118-74-1	1 U	1	5		1
04678	Hexachlorobutadiene	87-68-3	1 U	1	5		1
04678	Hexachlorocyclopentadiene	77-47-4	5 U	5	16		1
04678	Hexachloroethane	67-72-1	1 U	1	5		1
04678	Isophorone	78-59-1	1 U	1	5		1
04678	2-Methylphenol	95-48-7	1 U	1	5		1
04678	4-Methylphenol	106-44-5	2 U	2	5		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1 U	1	5		1
04678	3-Nitroaniline	99-09-2	1 U	1	5		1
04678	4-Nitroaniline	100-01-6	1 U	1	5		1
04678	Nitrobenzene	98-95-3	1 U	1	5		1
04678	2-Nitrophenol	88-75-5	1 U	1	5		1
04678	4-Nitrophenol	100-02-7	11 U	11	32		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04678	Pentachlorophenol	87-86-5	3 U	3	16		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	Tetralin	119-64-2	5 U	5	5		1
1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.010 U	0.010	0.051		1
10137	Acenaphthylene	208-96-8	0.010 U	0.010	0.051		1
10137	Anthracene	120-12-7	0.010 U	0.010	0.051		1
10137	Benzo(a)anthracene	56-55-3	0.010 U	0.010	0.051		1
10137	Benzo(a)pyrene	50-32-8	0.010 U	0.010	0.051		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Benzo(b)fluoranthene	205-99-2	0.010 U	0.010	0.051		1
10137	Benzo(g,h,i)perylene	191-24-2	0.010 U	0.010	0.051		1
10137	Benzo(k)fluoranthene	207-08-9	0.010 U	0.010	0.051		1
10137	Butylbenzylphthalate	85-68-7	0.051 U	0.051	1.0		1
10137	Di-n-butylphthalate	84-74-2	0.28 J	0.051	1.0		1
10137	Chrysene	218-01-9	0.010 U	0.010	0.051		1
10137	Dibenz(a,h)anthracene	53-70-3	0.010 U	0.010	0.051		1
10137	Diethylphthalate	84-66-2	0.077 J	0.051	1.0		1
10137	Dimethylphthalate	131-11-3	0.051 U	0.051	1.0		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.075 J	0.051	1.0		1
10137	Fluoranthene	206-44-0	0.010 U	0.010	0.051		1
10137	Fluorene	86-73-7	0.010 U	0.010	0.051		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.010 U	0.010	0.051		1
10137	1-Methylnaphthalene	90-12-0	0.010 U	0.010	0.051		1
10137	2-Methylnaphthalene	91-57-6	0.010 U	0.010	0.051		1
10137	Naphthalene	91-20-3	0.037 J	0.030	0.051		1
10137	N-Nitrosodimethylamine	62-75-9	0.010 U	0.010	0.051		1
10137	Di-n-octylphthalate	117-84-0	0.051 U	0.051	1.0		1
10137	Phenanthrene	85-01-8	0.030 U	0.030	0.051		1
10137	Pyrene	129-00-0	0.010 U	0.010	0.051		1
GC Volatiles	TPH GRO	SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1
Explosives	SW-846 8330A		ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000 0	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000 0	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000 0	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000 0	1
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60	1000000 0	1
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60	1000000 0	1
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60	1000000 0	1
10131	HMX	2691-41-0	0.65 U	0.65	2.0	1000000 0	1
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60	1000000 0	1
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15	1000000 0	1
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60	1000000 0	1
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000 0	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l		ug/l	ug/l	ug/l	
10131	4-Nitrotoluene	99-99-0	0.60	U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0	U	6.0	18	1000000 0	1
10131	RDX	121-82-4	1.1		0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40	U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20	U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20	U	0.20	0.60	1000000 0	1
Herbicides		SW-846 8151A	ug/l		ug/l	ug/l	ug/l	
10407	2,4-D	94-75-7	0.17	U	0.17	0.54		1
10407	Dalapon	75-99-0	0.27	U	0.27	1.3		1
10407	2,4-DB	94-82-6	0.32	U	0.32	1.1		1
10407	Dicamba	1918-00-9	0.086	U	0.086	0.32		1
10407	Dinoseb	88-85-7	0.11	U	0.11	0.54		1
10407	2,4-DP (Dichlorprop)	120-36-5	0.17	U	0.17	0.54		1
10407	MCPA	94-74-6	320	U	320	1,100		1
10407	MCPP	93-65-2	54	U	54	210		1
10407	2,4,5-T	93-76-5	0.016	U	0.016	0.054		1
10407	2,4,5-TP	93-72-1	0.011	U	0.011	0.054		1
HPLC Organics		SW-846 8315A	ug/l		ug/l	ug/l	ug/l	
04144	20b Formaldehyde	50-00-0	10	U	10	50		1
Pesticides/PCBs		SW-846 8081A	ug/l		ug/l	ug/l	ug/l	
00177	Aldrin	309-00-2	0.0024	U	0.0024	0.012		1
00177	Alpha BHC	319-84-6	0.0035	U	0.0035	0.012		1
00177	Beta BHC	319-85-7	0.0034	U	0.0034	0.012		1
00177	Gamma BHC - Lindane	58-89-9	0.0024	U	0.0024	0.012		1
00177	Chlordane	57-74-9	0.14	U	0.14	0.59		1
00177	p,p-DDD	72-54-8	0.0059	U	0.0059	0.024		1
00177	p,p-DDE	72-55-9	0.0059	U	0.0059	0.024		1
00177	p,p-DDT	50-29-3	0.0059	U	0.0059	0.024		1
00177	Delta BHC	319-86-8	0.0034	U	0.0034	0.012		1
00177	Dieldrin	60-57-1	0.0063	U	0.0063	0.024		1
00177	Endosulfan I	959-98-8	0.0051	U	0.0051	0.012		1
00177	Endosulfan II	33213-65-9	0.018	U	0.018	0.024		1
00177	Endosulfan Sulfate	1031-07-8	0.0069	U	0.0069	0.024		1
00177	Endrin	72-20-8	0.0096	U	0.0096	0.024		1
00177	Endrin Aldehyde	7421-93-4	0.024	U	0.024	0.12		1
00177	Endrin Ketone	53494-70-5	0.0059	U	0.0059	0.024		1
00177	Heptachlor	76-44-8	0.0031	U	0.0031	0.012		1
00177	Heptachlor Epoxide	1024-57-3	0.0027	U	0.0027	0.012		1
00177	Methoxychlor	72-43-5	0.035	U	0.035	0.12		1
00177	Mirex	2385-85-5	0.10	U	0.10	0.30		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/l		ug/l	ug/l	ug/l	
00177	Toxaphene	8001-35-2	1.2	U	1.2	3.5		1
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.12	U	0.12	0.59		1
10227	Aroclor 5442	12642-23-8	0.12	U	0.12	0.59		1
10227	Aroclor 5460	11126-42-4	0.12	U	0.12	0.59		1
10227	PCB-1016	12674-11-2	0.12	U	0.12	0.59		1
10227	PCB-1221	11104-28-2	0.12	U	0.12	0.59		1
10227	PCB-1232	11141-16-5	0.24	U	0.24	0.59		1
10227	PCB-1242	53469-21-9	0.12	U	0.12	0.59		1
10227	PCB-1248	12672-29-6	0.12	U	0.12	0.59		1
10227	PCB-1254	11097-69-1	0.12	U	0.12	0.59		1
10227	PCB-1260	11096-82-5	0.18	U	0.18	0.59		1
10227	PCB-1262	37324-23-5	0.24	U	0.24	0.59		1
10227	PCB-1268	11100-14-4	0.19	U	0.19	0.59		1
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200	U	200	1,000		1
06624	Isopropanol	67-63-0	200	U	200	1,000		1
06624	Methanol	67-56-1	200	U	200	1,000		1
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	10	U	10	100		1
08278	Ethylene glycol	107-21-1	10	U	10	100		1
08278	Propylene glycol	57-55-6	10	U	10	100		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.076	U	0.076	0.24		1
10319	o-Terphenyl	84-15-1	0.076	U	0.076	0.24		1
10319	p-Terphenyl	92-94-4	0.076	U	0.076	0.24		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C15-C20)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C21-C30)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C30 - C40)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C8-C11)	n.a.	0.11	U	0.11	0.68		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0043	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047 U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00045 J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046 J	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500		1
		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00050 J	0.00038	0.0020		1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00035 J	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.8	0.010	0.010		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 8 of 9

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
10962	21b NDMA by 1625C	EPA 1625C	1	11340WAA026	12/09/2011 12:52	Matthew S Woods	1
04678	5b SVOCs with Tetralin 8270C	SW-846 8270C	1	11340WAC026	12/12/2011 08:45	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11340WAG026	12/16/2011 16:42	Dale R Stoneroad	1
00813	BNA Water Extraction	SW-846 3510C	1	11340WAC026	12/06/2011 18:45	Nicholas W Shroyer	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11340WAG026	12/07/2011 08:40	Catherine R Wiker	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11340WAA026	12/06/2011 14:25	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11340A20A	12/07/2011 04:39	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11340A20A	12/07/2011 04:39	Marie D John	1
10131	15b Energetics by 8330A	SW-846 8330A	1	113400003A	12/13/2011 01:19	James H Place	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	113370002A	12/05/2011 19:27	James H Place	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	113370019A	12/06/2011 22:33	John W Perkins	1
00177	12b Pesticides by 8081A	SW-846 8081A	1	113400050A	12/09/2011 19:27	Lisa A Reinert	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113400049A	12/12/2011 05:27	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113400049A	12/07/2011 13:00	Kelli M Barto	1
11118	Pesticide Screen Waters Ext	SW-846 3510C	1	113400050A	12/07/2011 13:00	Kelli M Barto	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	113370019A	12/05/2011 08:30	Kerrie A Freeburn	1
01013	Formaldehyde Extraction	SW-846 8315A	1	113370002A	12/03/2011 08:40	Kelli M Barto	1
11122	Energetics Extraction	SW-846 8330	1	113400003A	12/06/2011 16:20	Kelli M Barto	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/06/2011 20:52	Elizabeth J Marin	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/07/2011 18:37	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	113400056A	12/07/2011 04:14	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	113400019A	12/07/2011 13:55	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113390010A	12/08/2011 05:20	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	113390010A	12/05/2011 17:52	Bronson L Cole	1
10304	Terphenyls water prep	SW-846 3510C	1	113400019A	12/06/2011 22:00	Elaine F Stoltzfus	1
01743	Aluminum	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08014	Boron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01750	Calcium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01754	Iron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01756	Lithium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01757	Magnesium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07058	Manganese	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01762	Potassium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01767	Sodium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08068	Strontium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07069	Tin	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07070	Titanium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10144	Zirconium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
06024	Antimony	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113416050004D	12/10/2011 07:36	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113416050004C	12/10/2011 07:36	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113416050004B	12/10/2011 07:36	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113405713003	12/09/2011 07:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113411848003	12/09/2011 09:22	Denise K Conners	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113416050004	12/09/2011 09:19	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113405713003	12/08/2011 15:23	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11336281101A	12/02/2011 12:50	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11335495401B	12/02/2011 11:17	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11341117101B	12/07/2011 17:40	Venia B McFadden	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11341117101B	12/07/2011 09:40	Nancy J Shoop	1
00200	17b pH by 9040B	SW-846 9040B	1	11341020003A	12/07/2011 19:00	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: E113391AA	Sample number(s): 6487693								
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	101	107	80-123	6	30
Batch number: Y113402AA	Sample number(s): 6487693								
Acetone	6 U	6.	20	ug/l	101	101	49-234	1	30
Benzene	0.5 U	0.5	5	ug/l	102	99	79-120	3	30
Bromobenzene	1 U	1.	5	ug/l	107	107	80-120	0	30
Bromochloromethane	1 U	1.	5	ug/l	99	96	80-120	3	30
Bromodichloromethane	1 U	1.	5	ug/l	93	91	80-120	2	30
Bromoform	1 U	1.	5	ug/l	94	92	61-120	2	30
Bromomethane	1 U	1.	5	ug/l	77	76	44-120	2	30
2-Butanone	3 U	3.	10	ug/l	97	99	66-151	1	30
n-Butylbenzene	1 U	1.	5	ug/l	111	107	74-120	3	30
sec-Butylbenzene	1 U	1.	5	ug/l	115	112	78-120	3	30
tert-Butylbenzene	1 U	1.	5	ug/l	100	97	80-120	3	30
Carbon Tetrachloride	1 U	1.	5	ug/l	94	90	75-123	4	30
Chlorobenzene	0.8 U	0.8	5	ug/l	100	98	80-120	3	30
Chloroethane	1 U	1.	5	ug/l	81	77	49-129	5	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	96	94	56-129	2	30
Chloroform	0.8 U	0.8	5	ug/l	100	98	77-122	2	30
Chloromethane	1 U	1.	5	ug/l	101	91	60-129	10	30
2-Chlorotoluene	1 U	1.	5	ug/l	108	107	80-120	2	30
4-Chlorotoluene	1 U	1.	5	ug/l	105	101	80-120	3	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	85	91	38-136	8	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	100	100	56-126	0	30
Dibromochloromethane	1 U	1.	5	ug/l	99	97	80-120	2	30
1,2-Dibromoethane	1 U	1.	5	ug/l	100	99	80-120	1	30
Dibromomethane	1 U	1.	5	ug/l	96	95	80-120	1	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	103	102	80-120	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	107	105	80-120	2	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	105	104	80-120	2	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	92	88	47-120	5	30
1,1-Dichloroethane	1 U	1.	5	ug/l	99	96	79-120	4	30
1,2-Dichloroethane	1 U	1.	5	ug/l	92	91	70-130	1	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	95	88	74-123	8	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	101	99	80-120	2	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	98	97	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	101	98	78-120	4	30
1,3-Dichloropropane	1 U	1.	5	ug/l	100	100	80-120	1	30
2,2-Dichloropropane	1 U	1.	5	ug/l	91	88	77-124	4	30
1,1-Dichloropropene	1 U	1.	5	ug/l	99	96	80-120	3	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	96	94	80-120	2	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	95	95	79-120	0	30
Ethylbenzene	0.8 U	0.8	5	ug/l	101	99	79-120	2	30
Freon 113	2 U	2.	10	ug/l	99	92	69-128	7	30
Freon 133a	2 U	2.	5	ug/l	88	93	77-120	6	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobutadiene	2 U	2.	5	ug/l	101	99	58-120	2	30
2-Hexanone	3 U	3.	10	ug/l	98	98	65-136	0	30
Isopropylbenzene	1 U	1.	5	ug/l	101	98	77-120	3	30
p-Isopropyltoluene	1 U	1.	5	ug/l	109	107	80-120	2	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	99	100	76-120	1	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	97	97	70-121	1	30
Methylene Chloride	2 U	2.	5	ug/l	107	109	80-120	2	30
n-Propylbenzene	1 U	1.	5	ug/l	117	113	80-120	3	30
Styrene	1 U	1.	5	ug/l	95	91	80-120	4	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	95	94	80-120	1	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	112	113	71-120	0	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	96	94	80-121	3	30
Toluene	0.7 U	0.7	5	ug/l	104	102	79-120	2	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	102	102	65-120	0	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	102	102	67-120	1	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	96	93	75-127	4	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	102	101	80-120	1	30
Trichloroethene	1 U	1.	5	ug/l	98	95	80-120	4	30
Trichlorofluoromethane	2 U	2.	5	ug/l	87	84	64-129	4	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	108	106	80-120	1	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	111	110	74-120	1	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	109	106	75-120	2	30
Vinyl Chloride	1 U	1.	5	ug/l	92	88	65-125	5	30
m+p-Xylene	0.8 U	0.8	5	ug/l	98	95	80-120	3	30
o-Xylene	0.8 U	0.8	5	ug/l	97	94	80-120	3	30

Batch number: 11337SLC026

Sample number(s): 6487688-6487692

Acenaphthene	17 U	17.	170	ug/kg	91		76-111
Acenaphthylene	17 U	17.	170	ug/kg	103		75-122
Aniline	170 U	170.	500	ug/kg	60		20-115
Anthracene	17 U	17.	170	ug/kg	96		76-112
Benzidine	1,200 U	1,200.	3,300	ug/kg	35		15-121
Benzo(a)anthracene	17 U	17.	170	ug/kg	97		73-112
Benzo(a)pyrene	17 U	17.	170	ug/kg	99		65-124
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	96		61-127
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	95		60-125
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	103		67-125
Benzoic acid	170 U	170.	500	ug/kg	94		62-113
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	93		73-114
Butylbenzylphthalate	17 U	17.	170	ug/kg	101		75-115
Di-n-butylphthalate	17 U	17.	170	ug/kg	103		79-112
Carbazole	17 U	17.	170	ug/kg	98		77-113
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	90		74-119
4-Chloroaniline	67 U	67.	170	ug/kg	31		10-110
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	90		70-118
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	91		70-104
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	87		62-115
2-Chloronaphthalene	17 U	17.	170	ug/kg	100		49-128
2-Chlorophenol	17 U	17.	170	ug/kg	93		72-112
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	91		74-115
Chrysene	17 U	17.	170	ug/kg	96		76-113
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	96		61-126
Dibenzofuran	17 U	17.	170	ug/kg	91		74-116

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	88		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	87		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	87		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	50		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	95		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	96		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	99		83-120		
Dimethylphthalate	17 U	17.	170	ug/kg	95		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	88		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	78		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	96		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	95		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	100		75-117		
Fluoranthene	17 U	17.	170	ug/kg	103		78-116		
Fluorene	17 U	17.	170	ug/kg	97		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	93		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	88		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	87		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	86		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	92		64-119		
Isophorone	17 U	17.	170	ug/kg	91		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	86		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	90		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	91		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	84		66-117		
Naphthalene	17 U	17.	170	ug/kg	93		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	96		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	83		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	60		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	93		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	94		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	87		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	81		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	84		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	98		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	104		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	90		51-117		
Phenanthrene	17 U	17.	170	ug/kg	97		77-113		
Phenol	17 U	17.	170	ug/kg	89		58-112		
Pyrene	17 U	17.	170	ug/kg	97		75-115		
Tetralin	170 U	170.	170	ug/kg					
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	92		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	98		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	97		78-111		
Batch number: 11339SLD026	Sample number(s): 6487689-6487692								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	107		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	110		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	106		73-113		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	104		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	107		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	109		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	109		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	118		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	107		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	113		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	113		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	110		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	111		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	113		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	102		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	100		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	102		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	96		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	113		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	104		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	106		72-119		

Batch number: 11340WAA026 Sample number(s): 6487693
N-Nitrosodimethylamine 0.500 U 0.500 1.00 ng/l 77 63* 70-130 20 30

Batch number: 11340WAC026	Sample number(s): 6487693								
Aniline	1 U	1.	5	ug/l	83	77	38-116	7	30
Benztidine	20 U	20.	60	ug/l	79	70	34-117	13	30
Benzoic acid	6 U	6.	15	ug/l	38	34	10-69	11	30
Benzyl alcohol	5 U	5.	15	ug/l	80	74	66-97	7	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	95	96	75-115	1	30
Carbazole	1 U	1.	5	ug/l	97	97	75-120	0	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	84	85	70-123	1	30
4-Chloroaniline	1 U	1.	5	ug/l	81	76	24-128	6	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	91	93	74-124	2	30
bis(2-Chloroethyl)ether	1 U	1.	5	ug/l	95	91	77-108	4	30
bis(2-Chloroisopropyl)ether	1 U	1.	5	ug/l	88	88	62-127	1	30
2-Chloronaphthalene	2 U	2.	5	ug/l	75	77	54-132	3	30
2-Chlorophenol	1 U	1.	5	ug/l	86	85	71-114	2	30
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	93	93	77-114	1	30
Dibenzofuran	1 U	1.	5	ug/l	91	90	75-117	1	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	85	84	55-118	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	84	83	61-111	1	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	83	81	53-119	3	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	73	65	37-117	11	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	91	92	77-117	2	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	90	87	72-110	3	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	91	90	70-130	2	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	100	102	65-126	2	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	87	88	52-131	0	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	94	94	76-119	1	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	96	97	76-118	1	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	96	96	68-127	0	30
Hexachlorobenzene	1 U	1.	5	ug/l	97	97	75-119	1	30
Hexachlorobutadiene	1 U	1.	5	ug/l	84	86	57-124	2	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	77	74	36-118	4	30
Hexachloroethane	1 U	1.	5	ug/l	81	79	52-113	2	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Isophorone	1 U	1.	5	ug/l	92	94	74-117	2	30
2-Methylphenol	1 U	1.	5	ug/l	79	73	58-110	7	30
4-Methylphenol	2 U	2.	5	ug/l	69	65	49-108	6	30
2-Nitroaniline	1 U	1.	5	ug/l	96	96	75-120	0	30
3-Nitroaniline	1 U	1.	5	ug/l	93	91	74-113	2	30
4-Nitroaniline	1 U	1.	5	ug/l	71	66	59-100	7	30
Nitrobenzene	1 U	1.	5	ug/l	90	94	75-109	4	30
2-Nitrophenol	1 U	1.	5	ug/l	93	94	76-118	1	30
4-Nitrophenol	10 U	10.	30	ug/l	35	33	16-78	9	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	85	85	69-110	0	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	95	98	67-136	2	30
Pentachlorophenol	3 U	3.	15	ug/l	97	97	53-110	0	30
Phenol	1 U	1.	5	ug/l	42	37	21-67	12	30
Tetralin	5 U	5.	5	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	88	90	71-112	2	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	95	94	79-107	1	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	95	94	76-120	1	30

Batch number: 11340WAG026

Sample number(s): 6487693

Acenaphthene	0.010 U	0.010	0.050	ug/l	100	98	74-109	2	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	104	99	70-110	5	30
Anthracene	0.010 U	0.010	0.050	ug/l	103	101	66-111	1	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	97	98	72-114	1	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	99	98	60-127	0	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	108	106	58-151	2	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	98	95	57-131	3	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	103	103	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	95	95	40-138	0	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	113	108	56-148	4	30
Chrysene	0.010 U	0.010	0.050	ug/l	99	94	76-116	5	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	100	97	55-134	3	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	111	107	37-148	4	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	105	100	40-119	5	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	101	101	57-154	1	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	100	95	75-116	5	30
Fluorene	0.010 U	0.010	0.050	ug/l	112	95	75-114	16	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	99	97	53-158	2	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	97	93	71-117	4	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	93	75-115	0	30
Naphthalene	0.030 U	0.030	0.050	ug/l	98	97	72-109	1	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	66	63	36-89	4	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	99	100	57-145	1	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	99	97	76-111	2	30
Pyrene	0.010 U	0.010	0.050	ug/l	99	95	69-118	4	30

Batch number: 11340A20A
TPH-GRO S.CA water C5-C12

Sample number(s): 6487693
20 U 20. 50

4-Amino-2,6-Dinitrotoluene	0.30 U	0.30	0.60	ug/l	110	110	80-120	0	30
2-Amino-4,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	98	100	80-120	2	30
2,6-Diamino-4-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	97	50-122	4	30
2,4-Diamino-6-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	97	50-122	4	30
1,3-Dinitrobenzene	0.20 U	0.20	0.60	ug/l	100	110	72-117	10	30
2,4-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	95	97	80-120	2	30
2,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	110	80-120	10	30
HMX	0.65 U	0.65	2.0	ug/l	96	98	65-125	2	30
Nitrobenzene	0.20 U	0.20	0.60	ug/l	88	92	75-121	4	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCS D Limits	RPD	RPD Max
Nitroglycerin	5.2 U	5.2	15	ug/l	96	100	80-120	4	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	92	94	74-120	2	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	97	99	69-107	2	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	91	92	80-120	1	30
PETN	6.0 U	6.0	18	ug/l	104	104	80-120	0	30
RDX	0.20 U	0.20	0.60	ug/l	95	98	70-125	3	30
Tetryl	0.40 U	0.40	0.60	ug/l	89	89	31-148	0	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	81	88	53-129	8	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	76-109	0	30
Batch number: 113370002A	Sample number(s): 6487693								
20b Formaldehyde 8315A	10 U	10.	50	ug/l	104	106	69-130	2	30
Batch number: 113370019A	Sample number(s): 6487693								
2,4-D	0.16 U	0.16	0.50	ug/l	96	96	73-157	0	30
Dalapon	0.25 U	0.25	1.3	ug/l	81	84	40-100	4	30
2,4-DB	0.30 U	0.30	1.0	ug/l	96	96	65-130	0	30
Dicamba	0.080 U	0.080	0.30	ug/l	112	116	68-135	4	30
Dinoseb	0.10 U	0.10	0.50	ug/l	88	88	32-91	0	30
2,4-DP (Dichlorprop)	0.16 U	0.16	0.50	ug/l	104	112	76-170	7	30
MCPA	300 U	300.	1,000	ug/l	96	102	65-128	6	30
MCP	50 U	50.	200	ug/l	108	108	67-137	0	30
2,4,5-T	0.015 U	0.015	0.050	ug/l	100	104	63-147	4	30
2,4,5-TP	0.010 U	0.010	0.050	ug/l	96	100	63-134	4	30
Batch number: 113400037A	Sample number(s): 6487688								
2,4-D	1.2 U	1.2	3.6	ug/kg	92		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	30		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	96		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	106		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	11		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	102		62-170		
MCPA	76 U	76.	250	ug/kg	102		60-130		
MCP (Mecoprop)	75 U	75.	250	ug/kg	101		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	99		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	84		68-114		
Batch number: 113390023A	Sample number(s): 6487688								
Aldrin	0.066 U	0.066	0.17	ug/kg	73		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	68		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	78		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	71		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	84		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	82		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	69		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	81		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	78		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	71		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	80		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	85		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	76		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	68		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	85		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	74		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	79		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	78		59-125		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 113400026A Sample number(s): 6487688-6487692									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	73	76	36-106	4	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	77		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	99		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113400049A Sample number(s): 6487693									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	76	78	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	84	82	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	98	92	56-135	6	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113400050A Sample number(s): 6487693									
Aldrin	0.0020 U	0.0020	0.010	ug/l	101	111	54-159	10	30
Alpha BHC	0.0030 U	0.0030	0.010	ug/l	100	110	59-146	10	30
Beta BHC	0.0029 U	0.0029	0.010	ug/l	103	113	73-147	10	30
Gamma BHC - Lindane	0.0020 U	0.0020	0.010	ug/l	100	100	68-128	0	30
Chlordane	0.12 U	0.12	0.50	ug/l					
p,p-DDD	0.0050 U	0.0050	0.020	ug/l	125	125	71-139	0	30
p,p-DDE	0.0050 U	0.0050	0.020	ug/l	111	116	66-130	5	30
p,p-DDT	0.0050 U	0.0050	0.020	ug/l	95	100	53-126	5	30
Delta BHC	0.0029 U	0.0029	0.010	ug/l	113	124	76-148	9	30
Dieldrin	0.0053 U	0.0053	0.020	ug/l	115	115	76-132	0	30
Endosulfan I	0.0043 U	0.0043	0.010	ug/l	91	93	68-128	2	30
Endosulfan II	0.015 U	0.015	0.020	ug/l	100	105	59-144	5	30
Endosulfan Sulfate	0.0058 U	0.0058	0.020	ug/l	125	130	71-142	4	30
Endrin	0.0081 U	0.0081	0.020	ug/l	90	90	52-132	0	30
Endrin Aldehyde	0.020 U	0.020	0.10	ug/l	115	115	68-139	0	20
Endrin Ketone	0.0050 U	0.0050	0.020	ug/l	125	125	69-146	0	30
Heptachlor	0.0026 U	0.0026	0.010	ug/l	100	100	57-126	0	30
Heptachlor Epoxide	0.0023 U	0.0023	0.010	ug/l	112	112	73-156	0	30
Methoxychlor	0.030 U	0.030	0.10	ug/l	110	110	52-133	0	30
Mirex	0.085 U	0.085	0.25	ug/l					
Toxaphene	1.0 U	1.0	3.0	ug/l					
Batch number: 113360017A Sample number(s): 6487688									
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100 U	100.	500	ug/kg	97		75-125		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methanol	100 U	100.	500	ug/kg	81		68-129		
Batch number: 113390042A	Sample number(s): 6487693								
Ethanol	200 U	200.	1,000	ug/l	108		78-116		
Isopropanol	200 U	200.	1,000	ug/l	104		75-125		
Methanol	200 U	200.	1,000	ug/l	112		76-122		
Batch number: 113400056A	Sample number(s): 6487693								
Diethylene glycol	10 U	10.	100	mg/l	110		67-126		
Ethylene glycol	10 U	10.	100	mg/l	80		78-136		
Propylene glycol	10 U	10.	100	mg/l	80		65-132		
Batch number: 113420018A	Sample number(s): 6487688								
Diethylene glycol	5.0 U	5.0	10	mg/kg	101		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	107		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 113390010A	Sample number(s): 6487693								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	86	76	63-121	12	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	87	77	72-124	11	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	85	72	64-123	17	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	87	73	73-124	17	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	88	78	43-107	12	30
Batch number: 113390013A	Sample number(s): 6487688								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		69-109		
Batch number: 113400014A	Sample number(s): 6487688								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	81		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	84		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	88		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	65		49-107		
Batch number: 113400019A	Sample number(s): 6487693								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	96	100	61-108	4	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	75-125	2	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	63-110	2	20
Batch number: 113391026002A	Sample number(s): 6487688-6487692								
Antimony	0.0705 U	0.0705	0.190	mg/kg	74		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	102		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	103		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	103		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	115		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	104		81-110		
Lead	0.0126 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	100		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	104		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	101		82-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.838 J	0.533	2.86	mg/kg	101		82-110		
Batch number: 113391026002B	Sample number(s): 6487688-6487692								
Selenium	0.0675 J	0.0552	0.381	mg/kg	96		79-110		
Batch number: 113391026002C	Sample number(s): 6487688-6487692								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	100		80-110		
Batch number: 113391026002D	Sample number(s): 6487688-6487692								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 113395708002	Sample number(s): 6487688-6487692								
Aluminum	6.05 U	6.05	20.0	mg/kg	83		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	106		83-110		
Calcium	4.62 J	2.50	20.0	mg/kg	102		81-110		
Iron	4.80 J	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	102		80-120		
Magnesium	4.81 J	0.440	10.0	mg/kg	88		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	103		85-116		
Phosphorus	0.983 J	0.350	10.0	mg/kg	104		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	98		71-110		
Sodium	5.95 U	5.95	100	mg/kg	99		76-110		
Strontium	0.0250 U	0.0250	0.500	mg/kg	103		84-110		
Tin	1.52 J	0.320	10.0	mg/kg	105		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	87		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	96		80-120		
Batch number: 113395711003	Sample number(s): 6487688-6487692								
Mercury	0.0067 U	0.0067	0.0947	mg/kg	92		83-119		
Batch number: 113405713003	Sample number(s): 6487693								
Mercury	0.000026 U	0.00002	0.00020	mg/l	102	101	80-120	1	20
Batch number: 113411848003	Sample number(s): 6487693								
Aluminum	0.0801 U	0.0801	0.200	mg/l	101	100	90-112	1	20
Boron	0.0022 U	0.0022	0.0500	mg/l	96	96	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	104	105	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	117*	105	90-112	11	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	101	101	90-110	0	20
Magnesium	0.0430 J	0.0067	0.100	mg/l	107	107	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	101	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	101	101	90-110	0	20
Potassium	0.0874 U	0.0874	0.500	mg/l	106	106	85-115	0	20
Sodium	0.0647 U	0.0647	1.00	mg/l	102	102	87-114	0	20
Strontium	0.00022 U	0.00022	0.0050	mg/l	100	101	90-110	0	20
Tin	0.0043 U	0.0043	0.0200	mg/l	98	99	90-110	0	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	101	90-113	0	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	103	90-110	1	20
Batch number: 113416050004A	Sample number(s): 6487693								
Antimony	0.00042 U	0.00042	0.0010	mg/l	106	109	87-110	3	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	110	110	86-111	0	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	105	108	90-113	3	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	109	110	90-114	0	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	109	111	90-118	2	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	113	112	87-113	1	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Copper	0.00038 U	0.00038	0.0020	mg/l	112	113	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	107	90-115	3	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	108	107	90-113	1	20
Silver	0.000098 U	0.00009	0.00050	mg/l	109	107	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	105	101	89-116	4	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	109	89-116	1	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	110	110	90-116	0	20
Batch number: 113416050004B	Sample number(s): 6487693								
Selenium	0.00027 U	0.00027	0.0020	mg/l	103	105	85-114	2	20
Batch number: 113416050004C	Sample number(s): 6487693								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	108	107	89-115	1	20
Batch number: 113416050004D	Sample number(s): 6487693								
Barium	0.00069 U	0.00069	0.0020	mg/l	108	106	88-113	2	20
Batch number: 11335495401B	Sample number(s): 6487693								
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	99	100	90-110	1	20
Batch number: 11336281101A	Sample number(s): 6487693								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	107	101	85-115	5	20
Batch number: 11337373601A	Sample number(s): 6487693								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	100	100	90-110	0	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	101	102	90-110	1	20
Batch number: 11339102201B	Sample number(s): 6487688								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	101		80-120		
Batch number: 11341117101B	Sample number(s): 6487693								
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	102	108	90-110	6	20
Batch number: 11341243202A	Sample number(s): 6487688-6487692								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	100		80-120		
Batch number: 11342342201B	Sample number(s): 6487688-6487692								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	100		85-115		
Batch number: 11348621201A	Sample number(s): 6487688-6487691								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11348621201B	Sample number(s): 6487692								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11341020003A	Sample number(s): 6487693								
17b pH by 9040B					100	100	90-110	0	3
Batch number: 11346039401B	Sample number(s): 6487688-6487692								
17a pH by 9045C					100		95-105		
Batch number: 11343162401B	Sample number(s): 6487688-6487692								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11337SLC026	Sample number(s): 6487688-6487692 UNSPK: P487630								
Acenaphthene	90	92	75-115	2	30				
Acenaphthylene	102	102	81-110	0	30				
Aniline	0*	0*	18-116	0	30				
Anthracene	95	93	75-115	1	30				
Benizidine	0*	0*	35-141	0	30				
Benzo(a)anthracene	85	85	65-122	1	30				
Benzo(a)pyrene	99	100	57-126	1	30				
Benzo(b)fluoranthene	94	91	59-125	3	30				
Benzo(g,h,i)perylene	96	102	59-127	6	30				
Benzo(k)fluoranthene	94	93	56-132	1	30				
Benzoic acid	0*	0*	10-173	0	30				
Benzyl alcohol	0*	0*	67-115	0	30				
4-Bromophenyl-phenylether	94	92	67-129	2	30				
Butylbenzylphthalate	98	91	73-134	6	30				
Di-n-butylphthalate	95	91	67-123	4	30				
Carbazole	96	91	64-120	5	30				
4-Chloro-3-methylphenol	91	83	62-122	9	30				
4-Chloroaniline	65	63	13-107	3	30				
bis(2-Chloroethoxy)methane	88	84	75-104	4	30				
bis(2-Chloroethyl)ether	85	85	60-116	0	30				
bis(2-Chloroisopropyl)ether	87	89	55-142	3	30				
2-Chloronaphthalene	86	76	50-141	11	30				
2-Chlorophenol	92	91	73-121	1	30				
4-Chlorophenyl-phenylether	88	88	80-109	0	30				
Chrysene	86	82	62-128	4	30				
Dibenz(a,h)anthracene	93	94	65-125	2	30				
Dibenzofuran	90	89	71-112	1	30				
1,2-Dichlorobenzene	92	86	66-108	7	30				
1,3-Dichlorobenzene	86	88	63-109	2	30				
1,4-Dichlorobenzene	88	87	58-108	1	30				
3,3'-Dichlorobenzidine	60	61	28-109	1	30				
2,4-Dichlorophenol	96	89	66-123	8	30				
Diethylphthalate	91	93	66-118	2	30				
2,4-Dimethylphenol	89	92	68-118	3	30				
3,5-Dimethylphenol	99	95	71-127	5	30				
Dimethylphthalate	89	90	64-118	1	30				
4,6-Dinitro-2-methylphenol	0*	0*	11-126	0	30				
2,4-Dinitrophenol	114	108	20-143	5	30				
2,4-Dinitrotoluene	80	79	56-129	1	30				
2,6-Dinitrotoluene	83	88	69-123	7	30				
1,2-Diphenylhydrazine	92	91	71-129	1	30				
bis(2-Ethylhexyl)phthalate	92	90	63-122	3	30				
Fluoranthene	98	94	73-112	4	30				
Fluorene	93	94	63-121	2	30				
Hexachlorobenzene	90	83	77-114	8	30				
Hexachlorobutadiene	89	96	62-120	7	30				
Hexachlorocyclopentadiene	81	71	10-153	12	30				
Hexachloroethane	87	87	57-109	0	30				
Indeno(1,2,3-cd)pyrene	92	93	61-126	2	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Isophorone	88	84	73-102	4	30				
1-Methylnaphthalene	85	80	64-122	5	30				
2-Methylnaphthalene	88	85	76-114	3	30				
2-Methylphenol	96	89	75-111	7	30				
4-Methylphenol	87	80	59-123	8	30				
Naphthalene	92	88	72-116	4	30				
2-Nitroaniline	86	90	67-125	6	30				
3-Nitroaniline	80	78	59-122	1	30				
4-Nitroaniline	70	78	41-109	12	30				
Nitrobenzene	89	89	57-125	0	30				
2-Nitrophenol	85	85	56-127	0	30				
4-Nitrophenol	0*	0*	37-129	0	30				
N-Nitroso-di-n-propylamine	76	85	60-116	11	30				
N-Nitrosodimethylamine	88	84	47-116	4	30				
N-Nitrosodiphenylamine	96	93	71-122	3	30				
Di-n-octylphthalate	104	106	56-126	2	30				
Pentachlorophenol	155*	154*	28-127	1	30				
Phenanthrene	94	92	65-125	2	30				
Phenol	85	85	58-126	1	30				
Pyrene	94	91	74-126	4	30				
1,2,4-Trichlorobenzene	88	88	72-115	0	30				
2,4,5-Trichlorophenol	99	93	58-129	6	30				
2,4,6-Trichlorophenol	87	92	56-134	6	30				

Batch number: 11339SLD026	Sample number(s): 6487689-6487692 UNSPK: P487630								
Acenaphthene	101	94	63-105	7	30				
Acenaphthylene	110	108	67-114	2	30				
Anthracene	118*	118*	73-115	0	30				
Benzo(a)anthracene	131*	118	59-128	11	30				
Benzo(a)pyrene	126	143*	58-142	12	30				
Benzo(b)fluoranthene	192*	208*	54-163	8	30				
Benzo(g,h,i)perylene	79	79	33-141	0	30				
Benzo(k)fluoranthene	139	142	57-153	2	30				
Butylbenzylphthalate	155	174*	57-173	12	30				
Di-n-butylphthalate	148	167*	65-148	12	30				
Chrysene	154*	152*	67-123	1	30				
Dibenz(a,h)anthracene	65	62	22-133	6	30				
Diethylphthalate	139*	142*	70-136	2	30				
Dimethylphthalate	148*	148*	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	170*	729*	39-167	124*	30				
Fluoranthene	135	120	51-149	12	30				
Fluorene	111	104	66-122	7	30				
Indeno(1,2,3-cd)pyrene	53	62	21-143	15	30				
1-Methylnaphthalene	109	95	72-123	13	30				
2-Methylnaphthalene	106*	94	64-103	12	30				
Naphthalene	108*	100	61-102	8	30				
N-Nitrosodimethylamine	109	92	48-113	17	30				
Di-n-octylphthalate	151	189	40-192	23	30				
Phenanthrene	113	103	62-122	9	30				
Pyrene	148*	127	51-131	15	30				

Batch number: 113400037A	Sample number(s): 6487688 UNSPK: P487630								
2,4-D	99	85	17-180	15	35				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Dalapon	37	36	10-125	3	50				
2,4-DB	81	74	10-201	9	50				
Dicamba	139	102	10-190	30	50				
Dinoseb	24	22	10-46	9	35				
2,4-DP (Dichlorprop)	113	94	33-178	18	50				
MCPA	149	112	10-213	26	50				
MCP (Mecoprop)	138	71	10-184	64*	50				
2,4,5-T	89	84	10-156	6	35				
2,4,5-TP	93	72	24-141	25	35				
Batch number: 113390023A Sample number(s): 6487688 UNSPK: P487630									
Aldrin	30	0*	16-126	200*	50				
Alpha BHC	0*	16	10-129	200*	50				
Beta BHC	31	0*	14-147	200*	50				
Gamma BHC - Lindane	32	15	10-140	72*	50				
p,p-DDD	0*	0*	16-163	0	50				
p,p-DDE	54	26	18-161	69*	50				
p,p-DDT	0*	0*	10-176	0	50				
Delta BHC	0*	0*	23-140	0	50				
Dieldrin	0*	0*	19-154	0	50				
Endosulfan I	0*	0*	16-137	0	50				
Endosulfan II	0*	34	28-154	200*	50				
Endosulfan Sulfate	31	0*	21-160	200*	50				
Endrin	40	21	11-149	63*	50				
Endrin Aldehyde	11	30	10-148	38*	35				
Endrin Ketone	0*	0*	22-165	0	50				
Heptachlor	29	0*	13-126	200*	50				
Heptachlor Epoxide	36	12*	13-157	104*	50				
Methoxychlor	29*	21*	32-147	29	50				
Batch number: 113400026A Sample number(s): 6487688-6487692 UNSPK: P488950									
PCB-1016	63	74	29-146	17	50				
PCB-1260	72	93	39-149	26	50				
Batch number: 113360017A Sample number(s): 6487688 UNSPK: P487630									
Ethanol	81	80	48-130	2	20				
Isopropanol	88	88	12-149	1	20				
Methanol	65	62	43-138	6	20				
Batch number: 113390042A Sample number(s): 6487693 UNSPK: P487124									
Ethanol	112	112	62-145	0	20				
Isopropanol	104	104	73-131	0	20				
Methanol	112	112	52-159	0	20				
Batch number: 113400056A Sample number(s): 6487693 UNSPK: 6487693									
Diethylene glycol	105	120	83-130	13	20				
Ethylene glycol	90	125	89-125	33*	20				
Propylene glycol	90*	125	91-128	33*	20				
Batch number: 113420018A Sample number(s): 6487688 UNSPK: P487630									
Diethylene glycol	24*	23*	59-109	1	20				
Ethylene glycol	68	68	63-107	1	20				
Propylene glycol	77	77	63-107	0	20				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113390013A	Sample number(s): 6487688 UNSPK: P487630								
m-Terphenyl	97	94	75-125	3	20				
o-Terphenyl	98	96	75-125	2	20				
p-Terphenyl	96	94	75-125	2	20				
Batch number: 113400014A	Sample number(s): 6487688 UNSPK: P487630								
EFH (C12-C14)	0*	0*	49-123	0	20				
EFH (C15-C20)	0*	0*	49-123	0	20				
EFH (C21-C30)	147 (2)	-288 (2)	49-123	6	20				
EFH (C30 - C40)	-4209 (2)	-3930 (2)	49-123	1	20				
EFH (C8-C11)	0*	0*	49-123	0	20				
Batch number: 113391026002A	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Antimony	43*	37*	75-125	12	20	0.115 J	0.0712 U	200* (1)	20
Arsenic	277*	165*	75-125	26*	20	4.22	3.91	7	20
Beryllium	204*	120	75-125	39*	20	0.478	0.465	3 (1)	20
Cadmium	188*	127*	75-125	35*	20	0.230	0.195	16 (1)	20
Chromium	263*	155*	75-125	28*	20	17.9	15.8	12	20
Cobalt	191*	128*	75-125	37*	20	6.73	5.67	17	20
Copper	257*	136*	75-125	39*	20	11.9	9.17	26*	20
Lead	329*	78	75-125	46*	20	10.2	6.14	50*	20
Nickel	256*	145*	75-125	35*	20	12.4	11.1	11	20
Silver	175*	124	75-125	35*	20	0.0492 J	0.0352 J	33* (1)	20
Thallium	202*	136*	75-125	29*	20	0.247	0.195	24* (1)	20
Vanadium	348*	191*	75-125	25*	20	37.8	33.3	13	20
Zinc	477 (2)	214 (2)	75-125	26*	20	69.1	58.2	17	20
Batch number: 113391026002B	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Selenium	131*	131*	75-125	1	20	0.257 J	0.521	68* (1)	20
Batch number: 113391026002C	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Molybdenum	179*	125	75-125	35*	20	0.915	0.649	34*	20
Batch number: 113391026002D	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Barium	550 (2)	130 (2)	75-125	31*	20	102	77.7	27*	20
Batch number: 113395708002	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Aluminum	611 (2)	863 (2)	75-125	3	20	13,400	12,600	6	20
Boron	98	99	84-115	1	20	4.59 J	3.87 J	17 (1)	20
Calcium	287 (2)	386 (2)	75-125	7	20	4,640	5,580	18	20
Iron	-2297 (2)	-1472 (2)	75-125	4	20	20,900	19,500	7	20
Lithium	100	98	82-114	1	20	21.3	20.2	5	20
Magnesium	97 (2)	200 (2)	75-125	4	20	4,860	4,940	2	20
Manganese	-31 (2)	6 (2)	75-125	6	20	308	258	18	20
Phosphorus	128*	118	75-125	2	20	368	382	4	20
Potassium	105	101	75-125	1	20	2,470	2,420	2	20
Sodium	98	98	75-125	1	20	138	136	2 (1)	20
Strontium	103	102	75-115	0	20	19.8	21.1	6	20
Tin	92	89	80-110	2	20	2.55 J	2.40 J	6 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	168 (2)	265 (2)	75-125	8	20	1,030	1,020	1	20
Zirconium	100	102	81-110	3	20	2.10 J	4.87	79* (1)	20
Batch number: 113395711003	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Mercury	106	70	65-135	8	20	0.528	0.478	10	20
Batch number: 11335495401B	Sample number(s): 6487693 UNSPK: P487411 BKG: P487411								
3b Cr VI by EPA 7199	110		59-135			5.0 U	5.0 U	0 (1)	20
Batch number: 11339102201B	Sample number(s): 6487688 UNSPK: P487640 BKG: P487640								
16a Cyanide by 9012B	102		75-125			0.18 U	0.17 U	0 (1)	20
Batch number: 11341243202A	Sample number(s): 6487688-6487692 UNSPK: P488950 BKG: P488950								
3a Cr VI by EPA 7199	108		75-125			0.20 U	0.20 U	0 (1)	20
Batch number: 11342342201B	Sample number(s): 6487688-6487692 UNSPK: P487641 BKG: P487641								
7a Perchlorate EPA 314.0	105		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11348621201A	Sample number(s): 6487688-6487691 UNSPK: P488950 BKG: P488950								
11a Anions by 300.0 - Fluoride	98		80-120			0.80 U	1.1	200* (1)	20
Batch number: 11348621201B	Sample number(s): 6487692 UNSPK: 6487692 BKG: 6487692								
11a Anions by 300.0 - Fluoride	91		80-120			2.2	3.5	45* (1)	20
Batch number: 11346039401B	Sample number(s): 6487688-6487692 BKG: 6487692								
17a pH by 9045C						8.35	8.39	0	3
Batch number: 11343162401B	Sample number(s): 6487688-6487692 BKG: P487644								
Moisture Content by 160.3						11.6	11.7	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 14b 1,4-Dioxane by 8260B SIM
Batch number: E113391AA
Toluene-d8

6487693	100
Blank	101
LCS	100
LCSD	100

Limits: 80-120

Analysis Name: 1b Volatile Organics EPA8260B
Batch number: Y113402AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

6487693	95	99	99	95
Blank	95	98	99	95
LCS	96	101	102	100
LCSD	95	101	101	99

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11337SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487688	90	95	66	81	89	82
6487689	93	100	72	87	94	93
6487690	95	101	62	85	93	89
6487691	93	96	91	84	89	84
6487692	94	98	87	85	90	87
Blank	92	98	94	86	88	86
LCS	91	96	93	88	91	85
MS	90	94	86	84	87	79
MSD	90	93	87	83	88	78

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11339SLD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487689	99	95	107
6487690	95	100	99
6487691	97	89	101
6487692	96	69	98
Blank	108	104	110
LCS	110	99	103
MS	118	107	113
MSD	109	92	109

Limits: 40-130 45-130 45-135

Analysis Name: 21b. NDMA in Water

Batch number: 11340WAA026

N-Nitrosodimethylamine-
d6

6487693	168*
Blank	170*
LCS	137
LCSD	170*

Limits: 50-150

Analysis Name: 5b Semivolatiles by EPA 8270C

Batch number: 11340WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	48	29	91	86	87	84
Blank	47	29	90	86	87	83
LCS	58	36	90	87	91	84

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

LCSD	51	32	91	89	90	84
Limits:	20-130	20-120	30-130	40-130	45-130	45-135

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11340WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	98	91	99
Blank	93	94	95
LCS	102	101	98
LCSD	101	90	91
Limits:	64-147	68-132	53-129

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11340A20A
Trifluorotoluene-F

6487693	97
Blank	96
LCS	116
LCSD	117
Limits:	63-135

Analysis Name: 20b Formaldehyde 8315A
Batch number: 113370002A
Butyraldehyde

6487693	98
Blank	101
LCS	104
LCSD	98
Limits:	45-145

Analysis Name: 13b Herbicides by EPA 8151
Batch number: 113370019A
2,4-Dichlorophenylacetic acid

6487693	97
Blank	89
LCS	100
LCSD	104
Limits:	35-144

Analysis Name: 12a Pesticides by 8081A
Batch number: 113390023A
Tetrachloro-m-xylene Decachlorobiphenyl

6487688	27*	0*
Blank	58	92
LCS	67	88
MS	37*	144*

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

MSD 18* 153*

Limits: 50-130 20-120

Analysis Name: 15b Energetics by 8330A
Batch number: 113400003A
2-Nitro-m-xylene

6487693 90
Blank 90
LCS 94
LCSD 93

Limits: 50-134

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113400026A
Tetrachloro-m-xylene Decachlorobiphenyl

6487688	79	54
6487689	83	55
6487690	89	95
6487691	87	92
6487692	89	96
Blank	71	82
LCS	92	108
LCSD	91	106
MS	75	84
MSD	91	100

Limits: 53-139 53-142

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 113400037A
2,4-Dichlorophenylacetic acid

6487688 118
Blank 99
LCS 110
MS 138
MSD 124

Limits: 36-156

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113400049A
Tetrachloro-m-xylene Decachlorobiphenyl

6487693	90	102
Blank	91	63
LCS	94	82
LCSD	91	75

Limits: 30-150 45-120

Analysis Name: 12b Pesticides by 8081A

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Batch number: 113400050A

Tetrachloro-m-xylene

Decachlorobiphenyl

6487693	96	104
Blank	97	73
LCS	99	98
LCSD	101	97

Limits: 52-141 40-144

Analysis Name: 18a Alcohols by 8015B

Batch number: 113360017A

Acetone

6487688	87
Blank	95
LCS	94
MS	87
MSD	92

Limits: 42-138

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel

Batch number: 113390010A

Chlorobenzene

Orthoterphenyl

6487693	79	92
Blank	80	87
LCS	78	87
LCSD	67	76

Limits: 28-152 52-131

Analysis Name: 22a Terphenyls by 8015B

Batch number: 113390013A

n-Triacontane-d62

6487688	80
Blank	72
LCS	72
MS	105
MSD	93

Limits: 19-152

Analysis Name: 18b Alcohols by 8015B

Batch number: 113390042A

Acetone

6487693	96
Blank	98
LCS	98
MS	98
MSD	98

Limits: 54-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel

Batch number: 113400014A

Chlorobenzene Orthoterphenyl

6487688	84	89
Blank	65	74
LCS	69	81
MS	71	77
MSD	74	84

Limits: 37-125 47-145

Analysis Name: 22b Terphenyls by 8015B

Batch number: 113400019A

n-Triacontane-d62

6487693	71
Blank	75
LCS	74
LCSD	73

Limits: 17-138

Analysis Name: 19b Glycols by 8015B

Batch number: 113400056A

Tetramethylene glycol

6487693	98
Blank	105
LCS	107
MS	109
MSD	120

Limits: 29-157

Analysis Name: 19a Glycols by 8015B

Batch number: 113420018A

Tetramethylene glycol

6487688	89
Blank	98
LCS	98
MS	89
MSD	89

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Sample # 6487688-93

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				PRIMARY ANALYTES										SECONDARY ANALYTES								Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected <u>Also report Tetralin under EPA Method 8270C.</u>																									
Samplers: Signatures:																									
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 6010B/2083&71A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 BLM	*PCB/MPCs EPA 8062	*Dioxin/Furan EPA 1613B	*Pesticides EPA 814.0	*Hex Chrome EPA 7199	*pH EPA 8045C/8040B	Pesticide Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**H-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B
DUP17-SA6-QC-120111	12.01.11	0825	SOIL	NONE	1-SS Sleeve			X	X																
DUP17-SA6-QC-120111	12.01.11	0825	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X		X	X	X					X	X	X	X
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-SS Sleeve				X	X															
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-SS Sleeve			X	X																
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-SS Sleeve			X	X																
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-SS Sleeve			X	X																
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
Relinquished by: (Signature)		Date/Time 12/01/2011 / 1630		Received for Laboratory by: (Signature)																				Laboratory: Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s) 8767 9857 5007, 5029																				12/2/11 091	

acct#13013 Cp#1279187

Sample# 6487688-93

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										ENCOREs		SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetra in under EPA Method 8270C.							*Metals EPA 8010/8220/821/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCP/PAHs EPA 8082	*Organic/Inorganic EPA 1631B	*Pesticides EPA 314.0	*Herbicides EPA 7199	*HPLC EPA 8060/8060B	*Pesticides Confirmation by EPA 8850 (10%)	*Pesticides EPA 8061A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs/EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EPH EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*Tr-NDMA EPA 1625C	*Ethenoxides EPA 8330A	*Cyanide EPA 8012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	12-1 liter ambers			X	X	X					X	X			X			X	X		X				
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X																
EB-SA6-SB-120111	12.01.11	1400	WATER	HNO3	1-500 mL poly	X																							
EB-SA6-SB-120111	12.01.11	1400	WATER	NaOH	1-500 mL poly																		X						
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-250 mL glass											X	X	X			X								
EB-SA6-SB-120111	12.01.11	1400	WATER	HCL	11-40 mL vials														X							X			
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	4-40 mL vials														X						X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:			
		12/01/2011 / 1630																								Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																									
				8767 9857 5007, 5029																						12/2/11 0915			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/02/2011

Group Number: 1279188

SDG: DX156

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
DUP17-SA6-QC-120111 Soil	6487694
SL-023-SA8S-SB-4.0-5.0 Soil	6487695
SL-023-SA8S-SB-9.0-10.0 Soil	6487696
SL-022-SA8S-SB-4.0-5.0 Soil	6487697
SL-022-SA8S-SB-8.0-9.0 Soil	6487698
EB-SA6-SB-120111 Water	6487699

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

COPY TO

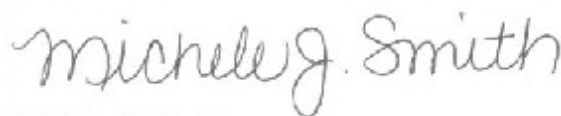
ELECTRONIC Data Package Group

COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.124	JBQ 0.0125	1.05	1
11031	12378-PeCDD	40321-76-4	0.299	JB 0.0263	5.25	1
11031	123478-HxCDD	39227-28-6	0.857	JB 0.0387	5.25	1
11031	123678-HxCDD	57653-85-7	2.87	JB 0.0412	5.25	1
11031	123789-HxCDD	19408-74-3	1.06	JB 0.0411	5.25	1
11031	1234678-HpCDD	35822-46-9	125	B 0.0685	5.25	1
11031	OCDD	3268-87-9	1,990	B 0.0414	10.5	1
11031	2378-TCDF	51207-31-9	0.159	JBQ 0.0338	1.05	1
11031	12378-PeCDF	57117-41-6	1.44	JB 0.0254	5.25	1
11031	23478-PeCDF	57117-31-4	0.313	JBQ 0.0231	5.25	1
11031	123478-HxCDF	70648-26-9	0.783	JB 0.0298	5.25	1
11031	123678-HxCDF	57117-44-9	0.551	JB 0.0296	5.25	1
11031	123789-HxCDF	72918-21-9	0.249	JB 0.0298	5.25	1
11031	234678-HxCDF	60851-34-5	0.684	JB 0.0292	5.25	1
11031	1234678-HpCDF	67562-39-4	12.5	B 0.0206	5.25	1
11031	1234789-HpCDF	55673-89-7	1.24	JB 0.0237	5.25	1
11031	OCDF	39001-02-0	37.2	B 0.0137	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/20/2011 17:30

Chantilly VA 20151

X5616 SDG#: DX156-16FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 18:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0118 JB	0.00955	1.12	1
11031	12378-PeCDD	40321-76-4	0.0222 JBQ	0.00875	5.60	1
11031	123478-HxCDD	39227-28-6	0.0201 JB	0.0103	5.60	1
11031	123678-HxCDD	57653-85-7	0.0349 JB	0.0111	5.60	1
11031	123789-HxCDD	19408-74-3	0.0346 JBQ	0.0100	5.60	1
11031	1234678-HpCDD	35822-46-9	0.363 JB	0.0113	5.60	1
11031	OCDD	3268-87-9	1.37 JB	0.0103	11.2	1
11031	2378-TCDF	51207-31-9	0.0156 JBQ	0.0106	1.12	1
11031	12378-PeCDF	57117-41-6	0.0333 JBQ	0.00466	5.60	1
11031	23478-PeCDF	57117-31-4	0.0701 JB	0.00477	5.60	1
11031	123478-HxCDF	70648-26-9	0.0444 JB	0.00625	5.60	1
11031	123678-HxCDF	57117-44-9	0.0306 JB	0.00523	5.60	1
11031	123789-HxCDF	72918-21-9	0.0357 JB	0.00614	5.60	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.00557	5.60	1
11031	1234678-HpCDF	67562-39-4	0.0967 JBQ	0.00682	5.60	1
11031	1234789-HpCDF	55673-89-7	0.0504 JBQ	0.0105	5.60	1
11031	OCDF	39001-02-0	0.150 JB	0.0115	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 19:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	9.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0266 JBQ	0.0111	1.10	1
11031	12378-PeCDD	40321-76-4	0.0272 JBQ	0.0106	5.48	1
11031	123478-HxCDD	39227-28-6	0.0140 JBQ	0.0104	5.48	1
11031	123678-HxCDD	57653-85-7	0.0308 JBQ	0.0105	5.48	1
11031	123789-HxCDD	19408-74-3	0.0336 JBQ	0.0103	5.48	1
11031	1234678-HpCDD	35822-46-9	0.277 JB	0.00997	5.48	1
11031	OCDD	3268-87-9	0.609 JB	0.00997	11.0	1
11031	2378-TCDF	51207-31-9	0.0227 JB	0.0123	1.10	1
11031	12378-PeCDF	57117-41-6	0.0271 JBQ	0.00609	5.48	1
11031	23478-PeCDF	57117-31-4	0.0637 JBQ	0.00520	5.48	1
11031	123478-HxCDF	70648-26-9	0.0386 JB	0.00653	5.48	1
11031	123678-HxCDF	57117-44-9	0.0327 JBQ	0.00554	5.48	1
11031	123789-HxCDF	72918-21-9	0.0419 JB	0.00598	5.48	1
11031	234678-HxCDF	60851-34-5	0.0394 JB	0.00554	5.48	1
11031	1234678-HpCDF	67562-39-4	0.0998 JB	0.00598	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0371 JBQ	0.00797	5.48	1
11031	OCDF	39001-02-0	0.118 JBQ	0.00886	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	50	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 20:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	11.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0172 JBQ	0.00911	1.10	1
11031	12378-PeCDD	40321-76-4	0.0331 JBQ	0.0103	5.51	1
11031	123478-HxCDD	39227-28-6	0.0181 JB	0.00877	5.51	1
11031	123678-HxCDD	57653-85-7	0.0272 JB	0.00911	5.51	1
11031	123789-HxCDD	19408-74-3	0.0329 JBQ	0.00855	5.51	1
11031	1234678-HpCDD	35822-46-9	0.276 JB	0.0107	5.51	1
11031	OCDD	3268-87-9	0.745 JB	0.00979	11.0	1
11031	2378-TCDF	51207-31-9	0.0185 JBQ	0.0124	1.10	1
11031	12378-PeCDF	57117-41-6	0.0343 JBQ	0.00517	5.51	1
11031	23478-PeCDF	57117-31-4	0.0748 JB	0.00506	5.51	1
11031	123478-HxCDF	70648-26-9	0.0318 JB	0.00619	5.51	1
11031	123678-HxCDF	57117-44-9	0.0284 JB	0.00517	5.51	1
11031	123789-HxCDF	72918-21-9	0.0344 JB	0.00641	5.51	1
11031	234678-HxCDF	60851-34-5	0.0370 JB	0.00551	5.51	1
11031	1234678-HpCDF	67562-39-4	0.0888 JBQ	0.00439	5.51	1
11031	1234789-HpCDF	55673-89-7	0.0318 JBQ	0.00664	5.51	1
11031	OCDF	39001-02-0	0.133 JB	0.0105	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/20/2011 17:30

Chantilly VA 20151

X5619 SDG#: DX156-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 21:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0113 JB	0.0106	1.08	1
11031	12378-PeCDD	40321-76-4	0.0244 JBQ	0.00852	5.41	1
11031	123478-HxCDD	39227-28-6	0.0147 JBQ	0.00966	5.41	1
11031	123678-HxCDD	57653-85-7	0.0316 JB	0.00977	5.41	1
11031	123789-HxCDD	19408-74-3	0.0302 JBQ	0.00955	5.41	1
11031	1234678-HpCDD	35822-46-9	0.242 JB	0.0107	5.41	1
11031	OCDD	3268-87-9	0.519 JB	0.0103	10.8	1
11031	2378-TCDF	51207-31-9	0.0201 JBQ	0.0108	1.08	1
11031	12378-PeCDF	57117-41-6	0.0201 JB	0.00557	5.41	1
11031	23478-PeCDF	57117-31-4	0.0569 JB	0.00523	5.41	1
11031	123478-HxCDF	70648-26-9	0.0391 JBQ	0.00591	5.41	1
11031	123678-HxCDF	57117-44-9	0.0263 JB	0.00500	5.41	1
11031	123789-HxCDF	72918-21-9	0.0255 JBQ	0.00602	5.41	1
11031	234678-HxCDF	60851-34-5	0.0367 JB	0.00557	5.41	1
11031	1234678-HpCDF	67562-39-4	0.0857 JB	0.00511	5.41	1
11031	1234789-HpCDF	55673-89-7	0.0319 JB	0.00761	5.41	1
11031	OCDF	39001-02-0	0.125 JB	0.0101	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	53	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/20/2011 17:30

Chantilly VA 20151

X5620 SDG#: DX156-20

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 22:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487699
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5621 SDG#: DX156-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.684 U	0.684	2.25	1
10915	12378-PeCDD	40321-76-4	0.576 U	0.576	11.3	1
10915	123478-HxCDD	39227-28-6	0.371 U	0.371	11.3	1
10915	123678-HxCDD	57653-85-7	0.534 JBQ	0.388	11.3	1
10915	123789-HxCDD	19408-74-3	0.378 U	0.378	11.3	1
10915	1234678-HpCDD	35822-46-9	4.07 JB	0.439	11.3	1
10915	OCDD	3268-87-9	5.86 JB	0.382	22.5	1
10915	2378-TCDF	51207-31-9	0.521 U	0.521	2.25	1
10915	12378-PeCDF	57117-41-6	0.251 U	0.251	11.3	1
10915	23478-PeCDF	57117-31-4	0.883 JBQ	0.222	11.3	1
10915	123478-HxCDF	70648-26-9	1.01 JBQ	0.274	11.3	1
10915	123678-HxCDF	57117-44-9	0.475 JB	0.261	11.3	1
10915	123789-HxCDF	72918-21-9	0.251 U	0.251	11.3	1
10915	234678-HxCDF	60851-34-5	0.834 JBQ	0.256	11.3	1
10915	1234678-HpCDF	67562-39-4	2.74 JB	0.223	11.3	1
10915	1234789-HpCDF	55673-89-7	0.318 JBQ	0.259	11.3	1
10915	OCDF	39001-02-0	2.46 JB	0.579	22.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	103	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487699
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5621 SDG#: DX156-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11339001	12/09/2011 19:12	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11339001	12/05/2011 08:45	Ginelle L Haines	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11343162401B Moisture Content by 160.3	Sample number(s): 6487694-6487698				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11339001	Sample number(s): 6487699								
2378-TCDD	0.554 U	0.554	2.00	pg/l	111		67-158		
12378-PeCDD	0.365 U	0.365	10.0	pg/l	109		70-142		
123478-HxCDD	0.276 U	0.276	10.0	pg/l	107		70-164		
123678-HxCDD	0.498 J	0.276	10.0	pg/l	105		76-134		
123789-HxCDD	0.726 J	0.282	10.0	pg/l	112		64-162		
1234678-HpCDD	3.79 J	0.252	10.0	pg/l	109		70-140		
OCDD	6.63 J	0.306	20.0	pg/l	105		78-144		
2378-TCDF	0.424 U	0.424	2.00	pg/l	103		75-158		
12378-PeCDF	0.230 J	0.174	10.0	pg/l	112		80-134		
23478-PeCDF	0.598 J	0.147	10.0	pg/l	106		68-160		
123478-HxCDF	0.975 J	0.216	10.0	pg/l	109		72-134		
123678-HxCDF	0.664 J	0.208	10.0	pg/l	108		84-130		
123789-HxCDF	0.327 J	0.190	10.0	pg/l	109		78-130		
234678-HxCDF	1.06 J	0.196	10.0	pg/l	106		70-156		
1234678-HpCDF	3.73 J	0.155	10.0	pg/l	101		82-122		
1234789-HpCDF	0.384 J	0.169	10.0	pg/l	106		78-138		
OCDF	2.25 J	0.371	20.0	pg/l	104		63-170		

Batch number: 11342003	Sample number(s): 6487694-6487698								
2378-TCDD	0.0313 J	0.0144	1.00	ng/kg	101		67-158		
12378-PeCDD	0.0899 J	0.0143	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0576 J	0.0114	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0571 J	0.0118	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0703 J	0.0113	5.00	ng/kg	107		64-162		
1234678-HpCDD	0.248 J	0.0122	5.00	ng/kg	100		70-140		
OCDD	0.403 J	0.0113	10.0	ng/kg	101		78-144		
2378-TCDF	0.0290 J	0.0127	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0765 J	0.00820	5.00	ng/kg	100		80-134		
23478-PeCDF	0.118 J	0.00780	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0750 J	0.0105	5.00	ng/kg	101		72-134		
123678-HxCDF	0.0647 J	0.00910	5.00	ng/kg	104		84-130		
123789-HxCDF	0.111 J	0.0107	5.00	ng/kg	104		78-130		
234678-HxCDF	0.0820 J	0.00970	5.00	ng/kg	100		70-156		
1234678-HpCDF	0.117 J	0.00660	5.00	ng/kg	92		82-122		
1234789-HpCDF	0.0904 J	0.0102	5.00	ng/kg	101		78-138		
OCDF	0.207 J	0.0135	10.0	ng/kg	102		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11343162401B Moisture Content by 160.3	Sample number(s): 6487694-6487698 BKG: P487644								
						11.6	11.7	0	20
Batch number: 11342003	Sample number(s): 6487694-6487698 UNSPK: P487669								
2378-TCDD	95	99	67-158	1	25				
12378-PeCDD	94	96	70-142	2	25				
123478-HxCDD	93	97	70-164	0	25				
123678-HxCDD	90	93	76-134	0	25				
123789-HxCDD	101	101	64-162	4	25				
1234678-HpCDD	61*	75	70-140	6	25				
OCDD	-135 (2)	-33 (2)	78-144	17	25				
2378-TCDF	93	96	75-158	1	25				
12378-PeCDF	96	97	80-134	3	25				
23478-PeCDF	93	90	68-160	6	25				
123478-HxCDF	98	100	72-134	1	25				
123678-HxCDF	99	100	84-130	3	25				
123789-HxCDF	101	101	78-130	3	25				
234678-HxCDF	97	97	70-156	4	25				
1234678-HpCDF	92	93	82-122	2	25				
1234789-HpCDF	100	95	78-138	8	25				
OCDF	99	100	63-170	2	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11339001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6487699	78	87	79	81	85	103
Blank	73	92	73	75	80	97
OPR	75	87	76	79	87	101
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6487699	86	87	87	77	76	77
Blank	82	88	86	79	70	74
OPR	90	97	104	79	79	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Surrogate Quality Control

6487699	77	80	82	87	85
Blank	72	79	84	83	87
OPR	77	88	96	89	89

Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11342003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6487694	83	93	76	77	76	79
6487695	64	72	65	75	69	69
6487696	63	76	57	66	65	63
6487697	66	72	67	78	71	66
6487698	65	71	63	74	65	64
Blank	80	82	74	83	78	76
MS	85	83	73	73	72	69
MSD	89	94	81	83	81	80
OPR	68	68	65	74	69	67

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

6487694	79	75	70	98	80	78
6487695	89	63	54	85	80	79
6487696	74	60	52	88	72	70
6487697	84	60	53	81	79	82
6487698	85	61	53	84	76	76
Blank	106	74	72	94	89	92
MS	65	54	41	97	80	82
MSD	75	69	49	111	87	90
OPR	97	60	55	80	79	80

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

6487694	77	79	72	79	91
6487695	82	77	68	54	76
6487696	72	76	63	50	72
6487697	82	77	65	54	74
6487698	77	80	65	53	71
Blank	90	99	94	70	84
MS	79	65	45	75	82
MSD	89	78	53	83	90
OPR	79	86	75	59	74

Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1279188

Sample# 6487694-99

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analytes as indicated on sample labels **Secondary Analytes as indicated on sample labels † Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B/2471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBAPCTs EPA 8062	*Dioxin/Furan EPA 1631B	*Pesticides EPA 314.0	*Hex Chrome EPA 7189	*pH EPA 8045/9040B	Pesticidate Confirmation by EPA 9850 (10%)	*Fertilizers EPA 8061A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**TPH-EFT EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 9015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
DUP17-SA8-QC-120111	12.01.11	0825	SOIL	NONE	1-SS Sleeve			X	X																		
DUP17-SA8-QC-120111	12.01.11	0825	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X		X	X	X				X	X	X	X			
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-SS Sleeve			X	X																		
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X														
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-SS Sleeve			X	X																		
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X														
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-SS Sleeve			X	X																		
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X														
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-SS Sleeve			X	X																		
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X														
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)															Laboratory:									
	12/01/2011 / 1630																	Lancaster Laboratories, Inc.									
Received by: (Signature)	Date/Time		Airbill No.(s)					Suzette Lehman										12/2/11 0915									
			8767 9857 5007, 5029																								

acct# 13013 Cp# 1279188

Sample# 6487694-99

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										ENCOREs		SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analytes as indicated on sample labels **Secondary Analytes as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetrahs under EPA Method 8270C.							*Metals EPA 8210/8220/8230/8240/8260/8270/8280/8290/8300/8310/8320/8330/8340/8350/8360/8370/8380/8390/8400/8410/8420/8430/8440/8450/8460/8470/8480/8490/8500/8510/8520/8530/8540/8550/8560/8570/8580/8590/8600/8610/8620/8630/8640/8650/8660/8670/8680/8690/8700/8710/8720/8730/8740/8750/8760/8770/8780/8790/8800/8810/8820/8830/8840/8850/8860/8870/8880/8890/8900/8910/8920/8930/8940/8950/8960/8970/8980/8990/9000/9010/9020/9030/9040/9050/9060/9070/9080/9090/9100/9110/9120/9130/9140/9150/9160/9170/9180/9190/9200/9210/9220/9230/9240/9250/9260/9270/9280/9290/9300/9310/9320/9330/9340/9350/9360/9370/9380/9390/9400/9410/9420/9430/9440/9450/9460/9470/9480/9490/9500/9510/9520/9530/9540/9550/9560/9570/9580/9590/9600/9610/9620/9630/9640/9650/9660/9670/9680/9690/9700/9710/9720/9730/9740/9750/9760/9770/9780/9790/9800/9810/9820/9830/9840/9850/9860/9870/9880/9890/9900/9910/9920/9930/9940/9950/9960/9970/9980/9990/10000	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/MPCs EPA 8082	*Dioxin/Furan EPA 1631B	*Pesticides EPA 8140	*Hex Chlorine EPA 7169	*PH EPA 8045/8090/8098	Pesticide Confirmation by EPA 8050 (10%)	*Pesticides EPA 8051A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EPA EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*NDMA EPA 1625C	*Emergents EPA 8330A	*Cyanide EPA 9012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	12-1 liter ambers		X	X	X																				
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-500 mL poly		X																						
EB-SA6-SB-120111	12.01.11	1400	WATER	HNO3	1-500 mL poly	X																							
EB-SA6-SB-120111	12.01.11	1400	WATER	NaOH	1-500 mL poly																								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-250 mL glass													X											
EB-SA6-SB-120111	12.01.11	1400	WATER	HCL	11-40 mL vials									X	X	X								X					
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	4-40 mL vials												X						X						
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:			
		12/01/2011 / 1630																								Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																									
				8767 9857 5007, 5029		Suzette Lehman																				12/2/11 0915			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 19, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/03/2011

Group Number: 1279335

SDG: DE292

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-019-SA8S-SB-4.0-5.0 Soil	6488950
SL-019-SA8S-SB-4.0-5.0MS Soil	6488951
SL-019-SA8S-SB-4.0-5.0MSD Soil	6488952
SL-019-SA8S-SB-4.0-5.0DUP Soil	6488953
SL-019-SA8S-SB-4.0-5.0RL MS Soil	6488954
SL-019-SA8S-SB-4.0-5.0RL LCS Soil	6488955
SL-020-SA8S-SB-4.0-5.0 Soil	6488956
SL-020-SA8S-SB-9.0-10.0 Soil	6488957
SL-021-SA8S-SB-4.0-5.0 Soil	6488958
SL-021-SA8S-SB-9.0-10.0 Soil	6488959
DUP02-SA8S-QC-120211 Soil	6488960

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,500	6.37	21.1	1
07914	Boron	7440-42-8	0.379 U	0.379	5.26	1
01650	Calcium	7440-70-2	3,680	2.63	21.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	22,700	2.75	21.1	1
01656	Lithium	7439-93-2	23.1	0.65	2.1	1
01657	Magnesium	7439-95-4	4,390	0.463	10.5	1
06958	Manganese	7439-96-5	321	0.0379	0.526	1
10145	Phosphorus	7723-14-0	472	0.368	10.5	1
01662	Potassium	7440-09-7	2,470	11.9	52.6	1
01667	Sodium	7440-23-5	63.9 J	6.26	105	1
07968	Strontium	7440-24-6	7.27	0.0263	0.526	1
06969	Tin	7440-31-5	3.57 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,190	0.0747	1.05	1
10146	Zirconium	7440-67-7	2.17 J	0.484	5.26	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0771 U	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.63	0.0834	0.417	2
06126	Barium	7440-39-3	87.0	0.110	0.417	2
06127	Beryllium	7440-41-7	0.599	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.0592 J	0.0459	0.104	2
06131	Chromium	7440-47-3	13.9	0.125	0.417	2
06132	Cobalt	7440-48-4	7.70	0.0208	0.104	2
06133	Copper	7440-50-8	7.40	0.0834	0.417	2
06135	Lead	7439-92-1	5.09	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.331	0.0521	0.104	2
06139	Nickel	7440-02-0	8.55	0.104	0.417	2
06141	Selenium	7782-49-2	0.107 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0148 U	0.0148	0.104	2
06145	Thallium	7440-28-0	0.288	0.0313	0.104	2
06148	Vanadium	7440-62-2	31.6	0.0229	0.104	2
06149	Zinc	7440-66-6	67.2	0.584	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0985	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	7.91	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11624	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 09:57	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 19:51	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:39	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 10:58	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 10:58	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 10:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:24	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:14	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 12:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,500	18	180	1
04688	Acenaphthylene	208-96-8	1,700	18	180	1
04688	Aniline	62-53-3	1,100	180	530	1
04688	Anthracene	120-12-7	1,600	18	180	1
04688	Benziidine	92-87-5	1,300	J 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,500	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,700	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,600	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	1,500	180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	1,600	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,600	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,600	18	180	1
04688	Carbazole	86-74-8	1,600	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	35	180	1
04688	4-Chloroaniline	106-47-8	940	70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,200	18	180	1
04688	2-Chlorophenol	95-57-8	1,500	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	35	180	1
04688	Chrysene	218-01-9	1,500	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,600	18	180	1
04688	Dibenzofuran	132-64-9	1,500	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,400	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	870	110	350	1
04688	2,4-Dichlorophenol	120-83-2	1,600	18	180	1
04688	Diethylphthalate	84-66-2	1,600	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,500	35	180	1
04688	3,5-Dimethylphenol	108-68-9	1,600	35	180	1
04688	Dimethylphthalate	131-11-3	1,600	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	870	180	530	1
04688	2,4-Dinitrophenol	51-28-5	950	J 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,600	35	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,500	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,500	18	350	1
04688	Fluoranthene	206-44-0	1,700	18	180	1
04688	Fluorene	86-73-7	1,600	18	180	1
04688	Hexachlorobenzene	118-74-1	1,600	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,400	70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	2,700	180	530	1
04688	Hexachloroethane	67-72-1	1,400	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,600	18	180	1
04688	Isophorone	78-59-1	1,500	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,400	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,500	18	180	1
04688	2-Methylphenol	95-48-7	1,600	35	180	1
04688	4-Methylphenol	106-44-5	1,500	35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,500	18	180	1
04688	2-Nitroaniline	88-74-4	1,600	18	180	1
04688	3-Nitroaniline	99-09-2	1,500	35	180	1
04688	4-Nitroaniline	100-01-6	1,100	70	180	1
04688	Nitrobenzene	98-95-3	1,500	18	180	1
04688	2-Nitrophenol	88-75-5	1,500	18	180	1
04688	4-Nitrophenol	100-02-7	1,300	180	530	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,800	18	180	1
04688	Pentachlorophenol	87-86-5	1,400	180	530	1
04688	Phenanthrene	85-01-8	1,600	18	180	1
04688	Phenol	108-95-2	1,500	18	180	1
04688	Pyrene	129-00-0	1,600	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,500	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.70	1.7	1
10138	Acenaphthylene	208-96-8	35	0.35	1.7	1
10138	Anthracene	120-12-7	37	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	36	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	37	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	34	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	38	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	43	6.3	19	1
10138	Chrysene	218-01-9	36	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	37	0.70	1.7	1
10138	Diethylphthalate	84-66-2	40	6.3	19	1
10138	Dimethylphthalate	131-11-3	37	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	44	6.3	19	1
10138	Fluoranthene	206-44-0	38	0.70	1.7	1
10138	Fluorene	86-73-7	37	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	37	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.70	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.70	1.7	1
10138	Naphthalene	91-20-3	32	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	32	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	39	6.3	19	1
10138	Phenanthrene	85-01-8	35	0.70	1.7	1
10138	Pyrene	129-00-0	36	0.70	1.7	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	11	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	13	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	13,500	6.18	20.4	1
07914	Boron	7440-42-8	200	0.368	5.11	1
01650	Calcium	7440-70-2	4,170	2.55	20.4	1
01654	Iron	7439-89-6	22,200	2.67	20.4	1
01656	Lithium	7439-93-2	123	0.63	2.0	1
01657	Magnesium	7439-95-4	4,540	0.450	10.2	1
06958	Manganese	7439-96-5	359	0.0368	0.511	1
10145	Phosphorus	7723-14-0	561	0.358	10.2	1
01662	Potassium	7440-09-7	3,500	11.5	51.1	1
01667	Sodium	7440-23-5	1,060	6.08	102	1
07968	Strontium	7440-24-6	104	0.0255	0.511	1
06969	Tin	7440-31-5	390	0.327	10.2	1
06970	Titanium	7440-32-6	1,380	0.0726	1.02	1
10146	Zirconium	7440-67-7	104	0.470	5.11	1
SW-846 6020						
06124	Antimony	7440-36-0	0.413	0.0749	0.202	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.47	0.0810	0.405	2
06126	Barium	7440-39-3	92.4	0.107	0.405	2
06127	Beryllium	7440-41-7	1.38	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.08	0.0445	0.101	2
06131	Chromium	7440-47-3	24.5	0.121	0.405	2
06132	Cobalt	7440-48-4	62.5	0.0202	0.101	2
06133	Copper	7440-50-8	18.1	0.0810	0.405	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	8.42	0.0103	0.202	2
06138	Molybdenum	7439-98-7	10.5	0.0506	0.101	2
06139	Nickel	7440-02-0	18.7	0.101	0.405	2
06141	Selenium	7782-49-2	2.14	0.0587	0.405	2
06142	Silver	7440-22-4	10.9	0.0144	0.101	2
06145	Thallium	7440-28-0	0.664	0.0304	0.101	2
06148	Vanadium	7440-62-2	42.8	0.0223	0.101	2
06149	Zinc	7440-66-6	75.0	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.173	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.2	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	585	9.5	31.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	45.4	1.1	5.3	5
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 10:21	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 18:48	Dale R Stoneroad	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:58	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:17	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:17	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:17	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:30	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 13:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:34	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	18	180	1
04688	Acenaphthylene	208-96-8	1,800	18	180	1
04688	Aniline	62-53-3	980	180	530	1
04688	Anthracene	120-12-7	1,700	18	180	1
04688	Benziidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,600	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,700	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,900	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,600	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	1,600	180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	1,600	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,600	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,700	18	180	1
04688	Carbazole	86-74-8	1,600	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	35	180	1
04688	4-Chloroaniline	106-47-8	850	70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,500	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,300	18	180	1
04688	2-Chlorophenol	95-57-8	1,600	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	35	180	1
04688	Chrysene	218-01-9	1,600	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,600	18	180	1
04688	Dibenzofuran	132-64-9	1,600	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	820	110	350	1
04688	2,4-Dichlorophenol	120-83-2	1,700	18	180	1
04688	Diethylphthalate	84-66-2	1,700	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,600	35	180	1
04688	3,5-Dimethylphenol	108-68-9	1,700	35	180	1
04688	Dimethylphthalate	131-11-3	1,600	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	670	180	530	1
04688	2,4-Dinitrophenol	51-28-5	720	J 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	35	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,700	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,600	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,600	18	350	1
04688	Fluoranthene	206-44-0	1,700	18	180	1
04688	Fluorene	86-73-7	1,700	18	180	1
04688	Hexachlorobenzene	118-74-1	1,600	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,600	70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	2,900	180	530	1
04688	Hexachloroethane	67-72-1	1,500	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,600	18	180	1
04688	Isophorone	78-59-1	1,500	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,500	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,600	18	180	1
04688	2-Methylphenol	95-48-7	1,600	35	180	1
04688	4-Methylphenol	106-44-5	1,500	35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	18	180	1
04688	2-Nitroaniline	88-74-4	1,700	18	180	1
04688	3-Nitroaniline	99-09-2	1,600	35	180	1
04688	4-Nitroaniline	100-01-6	1,100	70	180	1
04688	Nitrobenzene	98-95-3	1,600	18	180	1
04688	2-Nitrophenol	88-75-5	1,600	18	180	1
04688	4-Nitrophenol	100-02-7	1,400	180	530	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,800	18	180	1
04688	Pentachlorophenol	87-86-5	1,300	180	530	1
04688	Phenanthrene	85-01-8	1,600	18	180	1
04688	Phenol	108-95-2	1,500	18	180	1
04688	Pyrene	129-00-0	1,600	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,700	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.70	1.7	1
10138	Acenaphthylene	208-96-8	35	0.35	1.7	1
10138	Anthracene	120-12-7	35	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	34	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	35	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	34	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	32	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	33	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	40	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	42	6.3	19	1
10138	Chrysene	218-01-9	35	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	34	0.70	1.7	1
10138	Diethylphthalate	84-66-2	38	6.3	19	1
10138	Dimethylphthalate	131-11-3	37	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	45	6.3	19	1
10138	Fluoranthene	206-44-0	37	0.70	1.7	1
10138	Fluorene	86-73-7	35	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	33	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.70	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.70	1.7	1
10138	Naphthalene	91-20-3	31	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	33	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	38	6.3	19	1
10138	Phenanthrene	85-01-8	34	0.70	1.7	1
10138	Pyrene	129-00-0	34	0.70	1.7	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	13	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	16	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	14,000	6.12	20.2	1
07914	Boron	7440-42-8	198	0.364	5.06	1
01650	Calcium	7440-70-2	4,260	2.53	20.2	1
01654	Iron	7439-89-6	23,800	2.64	20.2	1
01656	Lithium	7439-93-2	122	0.63	2.0	1
01657	Magnesium	7439-95-4	4,710	0.445	10.1	1
06958	Manganese	7439-96-5	343	0.0364	0.506	1
10145	Phosphorus	7723-14-0	580	0.354	10.1	1
01662	Potassium	7440-09-7	3,540	11.4	50.6	1
01667	Sodium	7440-23-5	1,040	6.02	101	1
07968	Strontium	7440-24-6	104	0.0253	0.506	1
06969	Tin	7440-31-5	387	0.324	10.1	1
06970	Titanium	7440-32-6	1,430	0.0719	1.01	1
10146	Zirconium	7440-67-7	103	0.466	5.06	1
SW-846 6020						
06124	Antimony	7440-36-0	0.389	0.0749	0.202	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.39	0.0810	0.405	2
06126	Barium	7440-39-3	98.0	0.107	0.405	2
06127	Beryllium	7440-41-7	1.44	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.14	0.0445	0.101	2
06131	Chromium	7440-47-3	25.7	0.121	0.405	2
06132	Cobalt	7440-48-4	64.3	0.0202	0.101	2
06133	Copper	7440-50-8	19.1	0.0810	0.405	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	8.44	0.0103	0.202	2
06138	Molybdenum	7439-98-7	10.7	0.0506	0.101	2
06139	Nickel	7440-02-0	19.4	0.101	0.405	2
06141	Selenium	7782-49-2	2.49	0.0587	0.405	2
06142	Silver	7440-22-4	11.0	0.0144	0.101	2
06145	Thallium	7440-28-0	0.673	0.0304	0.101	2
06148	Vanadium	7440-62-2	44.6	0.0223	0.101	2
06149	Zinc	7440-66-6	79.7	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.174	0.0072	0.102	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 10:45	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 19:20	Dale R Stoneroad	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:16	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:20	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:20	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:20	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:31	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,700	6.24	20.6	1
07914	Boron	7440-42-8	0.372 U	0.372	5.16	1
01650	Calcium	7440-70-2	5,060	2.58	20.6	1
01654	Iron	7439-89-6	23,000	2.69	20.6	1
01656	Lithium	7439-93-2	23.0	0.64	2.1	1
01657	Magnesium	7439-95-4	4,400	0.454	10.3	1
06958	Manganese	7439-96-5	348	0.0372	0.516	1
10145	Phosphorus	7723-14-0	475	0.361	10.3	1
01662	Potassium	7440-09-7	2,280	11.7	51.6	1
01667	Sodium	7440-23-5	64.4 J	6.14	103	1
07968	Strontium	7440-24-6	8.19	0.0258	0.516	1
06969	Tin	7440-31-5	3.42 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,150	0.0733	1.03	1
10146	Zirconium	7440-67-7	2.77 J	0.475	5.16	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0764 U	0.0764	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.39	0.0826	0.413	2
06126	Barium	7440-39-3	91.4	0.109	0.413	2
06127	Beryllium	7440-41-7	0.701	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.0650 J	0.0454	0.103	2
06131	Chromium	7440-47-3	14.2	0.124	0.413	2
06132	Cobalt	7440-48-4	7.53	0.0206	0.103	2
06133	Copper	7440-50-8	7.79	0.0826	0.413	2
06135	Lead	7439-92-1	5.38	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.293	0.0516	0.103	2
06139	Nickel	7440-02-0	9.12	0.103	0.413	2
06141	Selenium	7782-49-2	0.133 J	0.0599	0.413	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.103	2
06145	Thallium	7440-28-0	0.291	0.0310	0.103	2
06148	Vanadium	7440-62-2	34.8	0.0227	0.103	2
06149	Zinc	7440-66-6	74.8	0.578	3.10	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.85	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.6	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	7.93	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11626	28a Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:04	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:27	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 12:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 11:32	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-019-SA8S-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488954
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	1.6 J	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	2.0	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-019-SA8S-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488955
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.6 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.9	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Fluoranthene	206-44-0	49	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenanthrene	85-01-8	52	J 19	190	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	Pyrene	129-00-0	35	J 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.4 U	2.4	5.6	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,100	6.77	22.4	1
07914	Boron	7440-42-8	8.36	0.403	5.59	1
01650	Calcium	7440-70-2	101,000	14.0	112	5
01654	Iron	7439-89-6	26,000	2.92	22.4	1
01656	Lithium	7439-93-2	21.3	0.69	2.2	1
01657	Magnesium	7439-95-4	7,170	0.492	11.2	1
06958	Manganese	7439-96-5	357	0.0403	0.559	1
10145	Phosphorus	7723-14-0	576	0.392	11.2	1
01662	Potassium	7440-09-7	3,670	12.6	55.9	1
01667	Sodium	7440-23-5	113	6.66	112	1
07968	Strontium	7440-24-6	128	0.0280	0.559	1
06969	Tin	7440-31-5	3.12 J	0.358	11.2	1
06970	Titanium	7440-32-6	922	0.0794	1.12	1
10146	Zirconium	7440-67-7	4.69 J	0.515	5.59	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.135 J	0.0820	0.222	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.01	0.0886	0.443	2
06126	Barium	7440-39-3	90.2	0.117	0.443	2
06127	Beryllium	7440-41-7	0.830	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.322	0.0487	0.111	2
06131	Chromium	7440-47-3	33.5	0.133	0.443	2
06132	Cobalt	7440-48-4	10.2	0.0222	0.111	2
06133	Copper	7440-50-8	21.2	0.0886	0.443	2
06135	Lead	7439-92-1	11.2	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.374	0.0554	0.111	2
06139	Nickel	7440-02-0	20.5	0.111	0.443	2
06141	Selenium	7782-49-2	0.217 J	0.0643	0.443	2
06142	Silver	7440-22-4	0.0273 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.285	0.0332	0.111	2
06148	Vanadium	7440-62-2	56.9	0.0244	0.111	2
06149	Zinc	7440-66-6	61.3	0.620	3.32	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.94 J	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	33.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.23	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.38	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 11:34	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 20:23	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	113410017A	12/09/2011 14:57	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:12	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	113410017A	12/08/2011 08:55	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:12	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:07	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:32	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 13:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 11:46	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20	1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8	1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8	1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20	1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8	1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,800	6.67	22.1	1
07914	Boron	7440-42-8	6.80	0.397	5.51	1
01650	Calcium	7440-70-2	80,900	13.8	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,500	2.88	22.1	1
01656	Lithium	7439-93-2	25.0	0.68	2.2	1
01657	Magnesium	7439-95-4	6,900	0.485	11.0	1
06958	Manganese	7439-96-5	394	0.0397	0.551	1
10145	Phosphorus	7723-14-0	432	0.386	11.0	1
01662	Potassium	7440-09-7	3,140	12.5	55.1	1
01667	Sodium	7440-23-5	142	6.56	110	1
07968	Strontium	7440-24-6	91.0	0.0276	0.551	1
06969	Tin	7440-31-5	2.87 J	0.353	11.0	1
06970	Titanium	7440-32-6	1,020	0.0783	1.10	1
10146	Zirconium	7440-67-7	5.66	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.151 J	0.0808	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.19	0.0873	0.437	2
06126	Barium	7440-39-3	99.0	0.116	0.437	2
06127	Beryllium	7440-41-7	0.857	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.350	0.0480	0.109	2
06131	Chromium	7440-47-3	36.8	0.131	0.437	2
06132	Cobalt	7440-48-4	12.7	0.0218	0.109	2
06133	Copper	7440-50-8	20.3	0.0873	0.437	2
06135	Lead	7439-92-1	11.4	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.434	0.0546	0.109	2
06139	Nickel	7440-02-0	22.7	0.109	0.437	2
06141	Selenium	7782-49-2	0.206 J	0.0633	0.437	2
06142	Silver	7440-22-4	0.0297 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.302	0.0328	0.109	2
06148	Vanadium	7440-62-2	61.9	0.0240	0.109	2
06149	Zinc	7440-66-6	65.6	0.611	3.28	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.37	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 11:58	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 20:54	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:32	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:09	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:34	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:05	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.9	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.9	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.9	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,200	6.57	21.7	1
07914	Boron	7440-42-8	7.84	0.391	5.43	1
01650	Calcium	7440-70-2	116,000	13.6	109	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,300	2.83	21.7	1
01656	Lithium	7439-93-2	22.3	0.67	2.2	1
01657	Magnesium	7439-95-4	6,240	0.478	10.9	1
06958	Manganese	7439-96-5	403	0.0391	0.543	1
10145	Phosphorus	7723-14-0	502	0.380	10.9	1
01662	Potassium	7440-09-7	3,220	12.3	54.3	1
01667	Sodium	7440-23-5	200	6.46	109	1
07968	Strontium	7440-24-6	98.9	0.0271	0.543	1
06969	Tin	7440-31-5	2.93 J	0.348	10.9	1
06970	Titanium	7440-32-6	932	0.0771	1.09	1
10146	Zirconium	7440-67-7	4.14 J	0.500	5.43	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.128 J	0.0796	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.28	0.0860	0.430	2
06126	Barium	7440-39-3	107	0.114	0.430	2
06127	Beryllium	7440-41-7	0.906	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.330	0.0473	0.108	2
06131	Chromium	7440-47-3	36.0	0.129	0.430	2
06132	Cobalt	7440-48-4	10.5	0.0215	0.108	2
06133	Copper	7440-50-8	17.2	0.0860	0.430	2
06135	Lead	7439-92-1	9.62	0.0110	0.215	2
06138	Molybdenum	7439-98-7	0.396	0.0538	0.108	2
06139	Nickel	7440-02-0	20.5	0.108	0.430	2
06141	Selenium	7782-49-2	0.206 J	0.0624	0.430	2
06142	Silver	7440-22-4	0.0356 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.324	0.0323	0.108	2
06148	Vanadium	7440-62-2	61.7	0.0237	0.108	2
06149	Zinc	7440-66-6	60.6	0.602	3.23	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0077 U	0.0077	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.45	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 12:23	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 21:26	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:40	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:11	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:35	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:29	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11341243202A	12/10/2011 12:23	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	19	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	22	J 19	370	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,700	6.54	21.6	1
07914	Boron	7440-42-8	6.42	0.389	5.41	1
01650	Calcium	7440-70-2	117,000	13.5	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	24,800	2.82	21.6	1
01656	Lithium	7439-93-2	22.9	0.67	2.2	1
01657	Magnesium	7439-95-4	6,190	0.476	10.8	1
06958	Manganese	7439-96-5	390	0.0389	0.541	1
10145	Phosphorus	7723-14-0	396	0.378	10.8	1
01662	Potassium	7440-09-7	2,500	12.2	54.1	1
01667	Sodium	7440-23-5	368	6.43	108	1
07968	Strontium	7440-24-6	92.6	0.0270	0.541	1
06969	Tin	7440-31-5	2.87 J	0.346	10.8	1
06970	Titanium	7440-32-6	1,030	0.0768	1.08	1
10146	Zirconium	7440-67-7	6.18	0.497	5.41	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.150 J	0.0808	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.32	0.0873	0.437	2
06126	Barium	7440-39-3	189	0.116	0.437	2
06127	Beryllium	7440-41-7	0.967	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.472	0.0480	0.109	2
06131	Chromium	7440-47-3	45.7	0.131	0.437	2
06132	Cobalt	7440-48-4	14.7	0.0218	0.109	2
06133	Copper	7440-50-8	22.8	0.0873	0.437	2
06135	Lead	7439-92-1	12.6	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.680	0.0546	0.109	2
06139	Nickel	7440-02-0	28.5	0.109	0.437	2
06141	Selenium	7782-49-2	0.256 J	0.0633	0.437	2
06142	Silver	7440-22-4	0.0276 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.383	0.0328	0.109	2
06148	Vanadium	7440-62-2	78.9	0.0240	0.109	2
06149	Zinc	7440-66-6	74.5	0.611	3.28	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0107 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.4	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.26 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.66	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 12:56	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 21:57	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 23:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:48	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:13	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:36	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:53	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:30	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,000	6.22	20.6	1
07914	Boron	7440-42-8	0.370 U	0.370	5.14	1
01650	Calcium	7440-70-2	3,440	2.57	20.6	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,300	2.69	20.6	1
01656	Lithium	7439-93-2	21.2	0.64	2.1	1
01657	Magnesium	7439-95-4	4,090	0.453	10.3	1
06958	Manganese	7439-96-5	280	0.0370	0.514	1
10145	Phosphorus	7723-14-0	378	0.360	10.3	1
01662	Potassium	7440-09-7	2,080	11.6	51.4	1
01667	Sodium	7440-23-5	60.6 J	6.12	103	1
07968	Strontium	7440-24-6	7.31	0.0257	0.514	1
06969	Tin	7440-31-5	3.27 J	0.329	10.3	1
06970	Titanium	7440-32-6	1,120	0.0730	1.03	1
10146	Zirconium	7440-67-7	1.90 J	0.473	5.14	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0761 U	0.0761	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.83	0.0823	0.411	2
06126	Barium	7440-39-3	63.6	0.109	0.411	2
06127	Beryllium	7440-41-7	0.475	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.0453 U	0.0453	0.103	2
06131	Chromium	7440-47-3	10.2	0.123	0.411	2
06132	Cobalt	7440-48-4	5.17	0.0206	0.103	2
06133	Copper	7440-50-8	5.24	0.0823	0.411	2
06135	Lead	7439-92-1	3.61	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.230	0.0514	0.103	2
06139	Nickel	7440-02-0	5.96	0.103	0.411	2
06141	Selenium	7782-49-2	0.107 J	0.0597	0.411	2
06142	Silver	7440-22-4	0.0146 U	0.0146	0.103	2
06145	Thallium	7440-28-0	0.246	0.0309	0.103	2
06148	Vanadium	7440-62-2	25.5	0.0226	0.103	2
06149	Zinc	7440-66-6	52.8	0.576	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.56	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011	13:44	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011	22:28	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011	07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011	18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011	23:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011	05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011	05:43	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011	11:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011	11:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011	11:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011	11:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:37	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 16:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:44	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11339SLE026 Sample number(s): 6488950-6488952, 6488956-6488960									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	94		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	97		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	100		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	99		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	99		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	107		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	107		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	103		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	107		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	114		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	101		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	112		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	115		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	112		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	102		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	107		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	102		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	110		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	95		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	93		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	90		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	76		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	109		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	107		72-119		
Batch number: 11341SLB026 Sample number(s): 6488950-6488952, 6488956-6488960									
Acenaphthene	17 U	17.	170	ug/kg	88		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	102		75-122		
Aniline	170 U	170.	500	ug/kg	68		20-115		
Anthracene	17 U	17.	170	ug/kg	97		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	37		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	88		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	97		65-124		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	98		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	89		60-125		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	95		67-125		
Benzoic acid	170 U	170.	500	ug/kg	90		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	91		73-114		
Butylbenzylphthalate	17 U	17.	170	ug/kg	91		75-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Analysis Name	Blank Result		Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS %REC	LCS/LCSD Limits	RPD	RPD Max
Di-n-butylphthalate	17	U	17.	170	ug/kg	97		79-112		
Carbazole	17	U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33	U	33.	170	ug/kg	88		74-119		
4-Chloroaniline	67	U	67.	170	ug/kg	41		10-110		
bis(2-Chloroethoxy)methane	17	U	17.	170	ug/kg	87		70-118		
bis(2-Chloroethyl)ether	17	U	17.	170	ug/kg	89		70-104		
bis(2-Chloroisopropyl)ether	17	U	17.	170	ug/kg	83		62-115		
2-Chloronaphthalene	17	U	17.	170	ug/kg	73		49-128		
2-Chlorophenol	17	U	17.	170	ug/kg	93		72-112		
4-Chlorophenyl-phenylether	33	U	33.	170	ug/kg	90		74-115		
Chrysene	17	U	17.	170	ug/kg	88		76-113		
Dibenz(a,h)anthracene	17	U	17.	170	ug/kg	89		61-126		
Dibenzofuran	17	U	17.	170	ug/kg	88		74-116		
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	84		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	52		10-116		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	92		75-111		
Diethylphthalate	17	U	17.	170	ug/kg	92		76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	90		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	96		83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	91		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	82		46-120		
	U									
2,4-Dinitrophenol	330		330.	1,000	ug/kg	76		18-133		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	93		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	95		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	92		71-125		
bis(2-Ethylhexyl)phthalate	17	U	17.	330	ug/kg	91		75-117		
Fluoranthene	17	U	17.	170	ug/kg	97		78-116		
Fluorene	17	U	17.	170	ug/kg	94		75-116		
Hexachlorobenzene	17	U	17.	170	ug/kg	92		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	85		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	84		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	84		61-109		
Indeno(1,2,3-cd)pyrene	17	U	17.	170	ug/kg	87		64-119		
Isophorone	17	U	17.	170	ug/kg	86		69-110		
1-Methylnaphthalene	17	U	17.	170	ug/kg	82		74-105		
2-Methylnaphthalene	17	U	17.	170	ug/kg	86		69-109		
2-Methylphenol	33	U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	86		66-117		
Naphthalene	17	U	17.	170	ug/kg	88		73-106		
2-Nitroaniline	17	U	17.	170	ug/kg	93		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	85		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	60		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	86		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170		170.	500	ug/kg	78		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	80		63-107		
N-Nitrosodimethylamine	33	U	33.	170	ug/kg	81		60-106		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	96		67-141		
Di-n-octylphthalate	17	U	17.	170	ug/kg	97		62-137		
Pentachlorophenol	170		170.	500	ug/kg	91		51-117		
	U									

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Phenanthrene	17	U	17.	170	ug/kg	95		77-113		
Phenol	17	U	17.	170	ug/kg	89		58-112		
Pyrene	17	U	17.	170	ug/kg	92		75-115		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	86		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	94		78-111		
Batch number: 113410017A	Sample number(s): 6488956									
6a Perchlorate EPA 6850	2.1	U	2.1	5.0	ug/kg	117*		85-115		
Batch number: 113400026A	Sample number(s): 6488950-6488952, 6488954-6488960									
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	73	76	36-106	4	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	77		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	99		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 113391026003A	Sample number(s): 6488950-6488953, 6488956-6488960									
Antimony	0.0712	U	0.0712	0.192	mg/kg	69		40-227		
Arsenic	0.0769	U	0.0769	0.385	mg/kg	99		83-111		
Beryllium	0.0154	U	0.0154	0.0962	mg/kg	97		84-112		
Cadmium	0.0423	U	0.0423	0.0962	mg/kg	104		83-111		
Chromium	0.115	U	0.115	0.385	mg/kg	110		77-123		
Cobalt	0.0192	U	0.0192	0.0962	mg/kg	105		85-114		
Copper	0.0769	U	0.0769	0.385	mg/kg	103		81-110		
Lead	0.0098	U	0.0098	0.192	mg/kg	100		84-112		
Nickel	0.0962	U	0.0962	0.385	mg/kg	99		81-110		
Silver	0.0137	U	0.0137	0.0962	mg/kg	100		83-112		
Thallium	0.0288	U	0.0288	0.0962	mg/kg	99		82-112		
Vanadium	0.0212	U	0.0212	0.0962	mg/kg	103		76-110		
Zinc	0.538	U	0.538	2.88	mg/kg	103		82-110		
Batch number: 113391026003B	Sample number(s): 6488950-6488953, 6488956-6488960									
Selenium	0.0558	U	0.0558	0.385	mg/kg	99		79-110		
Batch number: 113391026003C	Sample number(s): 6488950-6488953, 6488956-6488960									
Molybdenum	0.0481	U	0.0481	0.0962	mg/kg	99		80-110		
Batch number: 113391026003D	Sample number(s): 6488950-6488953, 6488956-6488960									
Barium	0.102	U	0.102	0.385	mg/kg	102		83-110		
Batch number: 113395708003	Sample number(s): 6488950-6488953, 6488956-6488960									
Aluminum	10.1	J	6.05	20.0	mg/kg	80		40-127		
Boron	0.360	U	0.360	5.00	mg/kg	103		83-110		
Calcium	9.44	J	2.50	20.0	mg/kg	102		81-110		
Iron	4.21	J	2.61	20.0	mg/kg	94		47-129		
Lithium	0.62	U	0.62	2.0	mg/kg	100		80-120		
Magnesium	4.45	J	0.440	10.0	mg/kg	88		63-116		
Manganese	0.0360	U	0.0360	0.500	mg/kg	99		85-116		
Phosphorus	1.34	J	0.350	10.0	mg/kg	105		80-120		
Potassium	11.3	U	11.3	50.0	mg/kg	100		71-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Sodium	6.93 J	5.95	100	mg/kg	102		76-110		
Strontium	0.0380 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.49 J	0.320	10.0	mg/kg	110		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	95		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	105		80-120		
Batch number: 113395711004	Sample number(s): 6488950-6488953, 6488956-6488960								
Mercury	0.0070 U	0.0070	0.0991	mg/kg	96		83-119		
Batch number: 11341243202A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	100		80-120		
Batch number: 11343621204A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	109		85-115		
Batch number: 11348621201A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11347039401A	Sample number(s): 6488950, 6488953, 6488956-6488960								
17a pH by 9045C					100		95-105		
Batch number: 11343162402A	Sample number(s): 6488950-6488954, 6488956-6488960								
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11339SLE026	Sample number(s): 6488950-6488952, 6488956-6488960 UNSPK: 6488950								
Acenaphthene	98	97	63-105	0	30				
Acenaphthylene	100	101	67-114	0	30				
Anthracene	105	101	73-115	3	30				
Benzo(a)anthracene	103	98	59-128	5	30				
Benzo(a)pyrene	106	100	58-142	6	30				
Benzo(b)fluoranthene	103	98	54-163	5	30				
Benzo(g,h,i)perylene	97	92	33-141	5	30				
Benzo(k)fluoranthene	98	94	57-153	5	30				
Butylbenzylphthalate	109	116	57-173	7	30				
Di-n-butylphthalate	122	120	65-148	2	30				
Chrysene	104	101	67-123	2	30				
Dibenz(a,h)anthracene	105	96	22-133	8	30				
Diethylphthalate	115	110	70-136	4	30				
Dimethylphthalate	106	107	74-118	1	30				
Bis(2-Ethylhexyl)phthalate	126	130	39-167	3	30				
Fluoranthene	108	107	51-149	1	30				
Fluorene	105	101	66-122	4	30				
Indeno(1,2,3-cd)pyrene	106	96	21-143	10	30				
1-Methylnaphthalene	88	89	72-123	0	30				
2-Methylnaphthalene	86	87	64-103	1	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Naphthalene	90	90	61-102	0	30				
N-Nitrosodimethylamine	93	93	48-113	0	30				
Di-n-octylphthalate	111	109	40-192	2	30				
Phenanthrene	100	98	62-122	2	30				
Pyrene	104	98	51-131	6	30				

Batch number: 11341SLB026 Sample number(s): 6488950-6488952, 6488956-6488960 UNSPK: 6488950

Acenaphthene	87	91	75-115	5	30				
Acenaphthylene	99	103	81-110	4	30				
Aniline	62	56	18-116	11	30				
Anthracene	93	96	75-115	4	30				
Benizidine	15*	0*	35-141	200*	30				
Benzo(a)anthracene	87	92	65-122	5	30				
Benzo(a)pyrene	98	100	57-126	1	30				
Benzo(b)fluoranthene	99	106	59-125	6	30				
Benzo(g,h,i)perylene	89	93	59-127	5	30				
Benzo(k)fluoranthene	96	97	56-132	0	30				
Benzoic acid	0*	0*	10-173	0	30				
Benzy alcohol	87	90	67-115	3	30				
4-Bromophenyl-phenylether	90	91	67-129	1	30				
Butylbenzylphthalate	90	91	73-134	2	30				
Di-n-butylphthalate	94	96	67-123	2	30				
Carbazole	91	93	64-120	2	30				
4-Chloro-3-methylphenol	89	90	62-122	1	30				
4-Chloroaniline	54	49	13-107	10	30				
bis(2-Chloroethoxy)methane	84	88	75-104	4	30				
bis(2-Chloroethyl)ether	86	90	60-116	5	30				
bis(2-Chloroisopropyl)ether	81	84	55-142	5	30				
2-Chloronaphthalene	71	76	50-141	6	30				
2-Chlorophenol	87	92	73-121	5	30				
4-Chlorophenyl-phenylether	90	94	80-109	5	30				
Chrysene	86	91	62-128	5	30				
Dibenz(a,h)anthracene	91	94	65-125	3	30				
Dibenzofuran	86	91	71-112	5	30				
1,2-Dichlorobenzene	79	84	66-108	6	30				
1,3-Dichlorobenzene	79	84	63-109	6	30				
1,4-Dichlorobenzene	80	83	58-108	4	30				
3,3'-Dichlorobenzidine	50	47	28-109	6	30				
2,4-Dichlorophenol	92	96	66-123	4	30				
Diethylphthalate	91	95	66-118	4	30				
2,4-Dimethylphenol	88	91	68-118	3	30				
3,5-Dimethylphenol	94	97	71-127	3	30				
Dimethylphthalate	90	93	64-118	4	30				
4,6-Dinitro-2-methylphenol	49	38	11-126	25	30				
2,4-Dinitrophenol	27	20	20-143	28	30				
2,4-Dinitrotoluene	91	95	56-129	4	30				
2,6-Dinitrotoluene	94	97	69-123	3	30				
1,2-Diphenylhydrazine	88	90	71-129	2	30				
bis(2-Ethylhexyl)phthalate	87	92	63-122	5	30				
Fluoranthene	95	98	73-112	3	30				
Fluorene	93	96	63-121	3	30				
Hexachlorobenzene	90	93	77-114	3	30				
Hexachlorobutadiene	81	89	62-120	9	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Hexachlorocyclopentadiene	77	84	10-153	9	30				
Hexachloroethane	80	83	57-109	4	30				
Indeno(1,2,3-cd)pyrene	91	90	61-126	1	30				
Isophorone	85	88	73-102	3	30				
1-Methylnaphthalene	81	86	64-122	5	30				
2-Methylnaphthalene	84	89	76-114	5	30				
2-Methylphenol	90	93	75-111	3	30				
4-Methylphenol	84	85	59-123	2	30				
Naphthalene	86	89	72-116	3	30				
2-Nitroaniline	92	96	67-125	4	30				
3-Nitroaniline	87	88	59-122	1	30				
4-Nitroaniline	61	60	41-109	2	30				
Nitrobenzene	84	89	57-125	5	30				
2-Nitrophenol	87	91	56-127	5	30				
4-Nitrophenol	75	78	37-129	4	30				
N-Nitroso-di-n-propylamine	79	80	60-116	2	30				
N-Nitrosodimethylamine	78	80	47-116	3	30				
N-Nitrosodiphenylamine	92	94	71-122	3	30				
Di-n-octylphthalate	102	103	56-126	0	30				
Pentachlorophenol	78	73	28-127	7	30				
Phenanthrene	91	93	65-125	2	30				
Phenol	87	88	58-126	1	30				
Pyrene	92	92	74-126	1	30				
1,2,4-Trichlorobenzene	85	89	72-115	4	30				
2,4,5-Trichlorophenol	93	96	58-129	3	30				
2,4,6-Trichlorophenol	92	95	56-134	3	30				

Batch number: 113410017A
6a Perchlorate EPA 6850

Sample number(s): 6488956 UNSPK: 6488956
114 119 80-120 4 20

Batch number: 113400026A
PCB-1016
PCB-1260

Sample number(s): 6488950-6488952,6488954-6488960 UNSPK: 6488950
63 74 29-146 17 50
72 93 39-149 26 50

Batch number: 113391026003A

Antimony	34*	32*	75-125	6	20	0.0733 U	0.0725 U	0 (1)	20
Arsenic	140*	136*	75-125	1	20	6.30	7.02	11	20
Beryllium	96	104	75-125	5	20	0.569	0.665	16	20
Cadmium	101	107	75-125	5	20	0.0562 J	0.0617 J	9 (1)	20
Chromium	105	117	75-125	5	20	13.2	13.5	3	20
Cobalt	108	112	75-125	3	20	7.31	7.15	2	20
Copper	106	116	75-125	5	20	7.03	7.40	5	20
Lead	110	110	75-125	0	20	4.84	5.11	5	20
Nickel	100	107	75-125	4	20	8.12	8.67	6	20
Silver	107	108	75-125	1	20	0.0141 U	0.0139 U	0 (1)	20
Thallium	93	95	75-125	1	20	0.274	0.276	1 (1)	20
Vanadium	111	129*	75-125	4	20	30.0	33.1	10	20
Zinc	77 (2)	123 (2)	75-125	6	20	63.8	71.0	11	20

Batch number: 113391026003B
Selenium

Sample number(s): 6488950-6488953,6488956-6488960 UNSPK: 6488950 BKG: 6488950
100 118 75-125 15 20 0.102 J 0.126 J 21* (1) 20

Batch number: 113391026003C

Sample number(s): 6488950-6488953,6488956-6488960 UNSPK: 6488950 BKG: 6488950

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Molybdenum	100	102	75-125	2	20	0.314	0.278	12 (1)	20
Batch number: 113391026003D	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Barium	54 (2)	109 (2)	75-125	6	20	82.6	86.8	5	20
Batch number: 113395708003	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Aluminum	996 (2)	1240 (2)	75-125	3	20	10,900	11,100	2	20
Boron	98	98	84-115	1	20	0.360 U	0.353 U	0 (1)	20
Calcium	122 (2)	144 (2)	75-125	2	20	3,490	4,800	32*	20
Iron	-418 (2)	1097 (2)	75-125	7	20	21,500	21,800	1	20
Lithium	98	98	82-114	1	20	22.0	21.8	1	20
Magnesium	72 (2)	157 (2)	75-125	4	20	4,170	4,180	0	20
Manganese	75 (2)	44 (2)	75-125	5	20	305	330	8	20
Phosphorus	87 (2)	107 (2)	75-125	3	20	448	452	1	20
Potassium	101	106	75-125	1	20	2,340	2,170	8	20
Sodium	97	96	75-125	2	20	60.7 J	61.2 J	1 (1)	20
Strontium	94	95	75-115	0	20	6.91	7.78	12	20
Tin	94	95	80-110	1	20	3.39 J	3.25 J	4 (1)	20
Titanium	191 (2)	239 (2)	75-125	3	20	1,130	1,090	4	20
Zirconium	100	99	81-110	1	20	2.06 J	2.63 J	24* (1)	20
Batch number: 113395711004	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Mercury	103	102	65-135	1	20	0.0066 U	0.0067 U	0 (1)	20
Batch number: 11341243202A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
3a Cr VI by EPA 7199	108		75-125			0.20 U	0.20 U	0 (1)	20
Batch number: 11343621204A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
7a Perchlorate EPA 314.0	112		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11348621201A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
11a Anions by 300.0 - Fluoride	98		80-120			0.80 U	1.1	200* (1)	20
Batch number: 11347039401A	Sample number(s): 6488950, 6488953, 6488956-6488960 BKG: 6488950								
17a pH by 9045C						7.91	7.93	0	3
Batch number: 11343162402A	Sample number(s): 6488950-6488954, 6488956-6488960 BKG: 6488950								
28a Moisture Content by 160.3						5.0	5.3	7	20
Moisture Content by 160.3						5.0	5.3	7	20
Moisture Content by 160.3						5.0	5.3	7	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Surrogate Quality Control

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11339SLE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6488950	99	89	98
6488951	106	90	94
6488952	106	93	95
6488956	98	96	101
6488957	88	91	91
6488958	95	87	102
6488959	94	99	100
6488960	89	91	99
Blank	97	93	104
LCS	112	95	98
MS	106	90	94
MSD	106	93	95
Limits:	67-129	63-129	51-141

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11341SLB026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6488950	91	96	92	85	90	84
6488951	88	92	92	81	84	79
6488952	90	95	92	84	91	82
6488956	94	99	94	83	87	84
6488957	95	98	91	81	88	82
6488958	88	93	87	78	85	83
6488959	94	98	93	83	88	86
6488960	89	93	95	84	89	86
Blank	91	95	91	84	90	84
LCS	90	94	91	81	85	81
MS	88	92	92	81	84	79
MSD	90	95	92	84	91	82
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113400026A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6488950	91	105
6488951	75	84
6488952	91	100
6488954	88	102
6488955	86	100
6488956	88	100
6488957	81	90
6488958	85	95
6488959	93	104
6488960	87	100
Blank	71	82
LCS	92	108
LCS D	91	106
MS	75	84

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Surrogate Quality Control

MSD	91	100
Limits:	53-139	45-120

*- Outside of specification

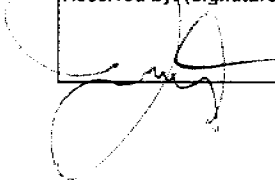
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acc#13013 Cp# 1279335

Sample# 6433950-60

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES								Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B		Perchlorate Confirmation by EPA 6850 (10%)
Samplers Signatures: 																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-SS Sleeve				X	X						MS/MSD
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-16 oz jars	X	X				X	X	X	X		MS/MSD
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-SS Sleeve				X	X						
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-16 oz jar	X	X				X	X	X	X	X	
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-SS Sleeve				X	X						
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-16 oz jar	X	X				X	X	X	X		
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-SS Sleeve				X	X						
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-16 oz jar	X	X				X	X	X	X		
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-SS Sleeve				X	X						
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-16 oz jar	X	X				X	X	X	X		
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-SS Sleeve				X	X						
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-16 oz jar	X	X				X	X	X	X		
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)												Laboratory:	
	12/02/2011 / 1630														Lancaster Laboratories, Inc.	
Received by: (Signature)	Date/Time		Airbill No.(s)													
	12/2/11 0910		8767 9857 5030													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/03/2011

Group Number: 1279336

SDG: DX157

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-019-SA8S-SB-4.0-5.0 Soil	6488961
SL-019-SA8S-SB-4.0-5.0MS Soil	6488962
SL-019-SA8S-SB-4.0-5.0MSD Soil	6488963
SL-020-SA8S-SB-4.0-5.0 Soil	6488964
SL-020-SA8S-SB-9.0-10.0 Soil	6488965
SL-021-SA8S-SB-4.0-5.0 Soil	6488966
SL-021-SA8S-SB-9.0-10.0 Soil	6488967
DUP02-SA8S-QC-120211 Soil	6488968

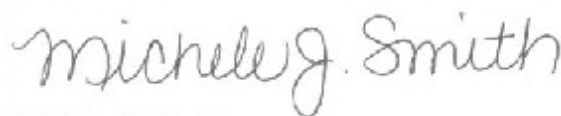
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0305 JBQ	0.0145	1.05	1
11031	12378-PeCDD	40321-76-4	0.0394 JB	0.0149	5.25	1
11031	123478-HxCDD	39227-28-6	0.0352 JB	0.0132	5.25	1
11031	123678-HxCDD	57653-85-7	0.0428 JB	0.0136	5.25	1
11031	123789-HxCDD	19408-74-3	0.0397 JBQ	0.0127	5.25	1
11031	1234678-HpCDD	35822-46-9	0.316 JBQ	0.0158	5.25	1
11031	OCDD	3268-87-9	0.550 JB	0.0160	10.5	1
11031	2378-TCDF	51207-31-9	0.0138 U	0.0138	1.05	1
11031	12378-PeCDF	57117-41-6	0.0360 JB	0.00779	5.25	1
11031	23478-PeCDF	57117-31-4	0.0732 JBQ	0.00737	5.25	1
11031	123478-HxCDF	70648-26-9	0.0533 JB	0.00989	5.25	1
11031	123678-HxCDF	57117-44-9	0.0445 JBQ	0.00926	5.25	1
11031	123789-HxCDF	72918-21-9	0.0534 JB	0.0100	5.25	1
11031	234678-HxCDF	60851-34-5	0.0560 JBQ	0.00958	5.25	1
11031	1234678-HpCDF	67562-39-4	0.131 JB	0.00853	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0352 JBQ	0.0108	5.25	1
11031	OCDF	39001-02-0	0.151 JB	0.0128	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/16/2011 23:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.7	B	0.0195	1
11031	12378-PeCDD	40321-76-4	102	B	0.0211	1
11031	123478-HxCDD	39227-28-6	97.7	B	0.0280	1
11031	123678-HxCDD	57653-85-7	98.2	B	0.0301	1
11031	123789-HxCDD	19408-74-3	106	B	0.0274	1
11031	1234678-HpCDD	35822-46-9	105	B	0.0294	1
11031	OCDD	3268-87-9	206	B	0.0235	1
11031	2378-TCDF	51207-31-9	20.6	B	0.0254	1
11031	12378-PeCDF	57117-41-6	105	B	0.0205	1
11031	23478-PeCDF	57117-31-4	96.9	B	0.0187	1
11031	123478-HxCDF	70648-26-9	107	B	0.0371	1
11031	123678-HxCDF	57117-44-9	104	B	0.0319	1
11031	123789-HxCDF	72918-21-9	105	B	0.0344	1
11031	234678-HxCDF	60851-34-5	103	B	0.0342	1
11031	1234678-HpCDF	67562-39-4	96.7	B	0.0240	1
11031	1234789-HpCDF	55673-89-7	102	B	0.0302	1
11031	OCDF	39001-02-0	205	B	0.0198	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 05:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.1	B	0.0199	1
11031	12378-PeCDD	40321-76-4	103	B	0.0280	1
11031	123478-HxCDD	39227-28-6	96.9	B	0.0236	1
11031	123678-HxCDD	57653-85-7	97.3	B	0.0237	1
11031	123789-HxCDD	19408-74-3	106	B	0.0224	1
11031	1234678-HpCDD	35822-46-9	103	B	0.0255	1
11031	OCDD	3268-87-9	202	B	0.0217	1
11031	2378-TCDF	51207-31-9	20.4	B	0.0235	1
11031	12378-PeCDF	57117-41-6	102	B	0.0199	1
11031	23478-PeCDF	57117-31-4	98.9	B	0.0200	1
11031	123478-HxCDF	70648-26-9	107	B	0.0442	1
11031	123678-HxCDF	57117-44-9	106	B	0.0405	1
11031	123789-HxCDF	72918-21-9	107	B	0.0409	1
11031	234678-HxCDF	60851-34-5	101	B	0.0411	1
11031	1234678-HpCDF	67562-39-4	95.8	B	0.0234	1
11031	1234789-HpCDF	55673-89-7	102	B	0.0287	1
11031	OCDF	39001-02-0	205	B	0.0227	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 06:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	11.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0395 JB	0.0133	1.12	1
11031	12378-PeCDD	40321-76-4	0.0780 JBQ	0.0165	5.62	1
11031	123478-HxCDD	39227-28-6	0.0492 JBQ	0.0139	5.62	1
11031	123678-HxCDD	57653-85-7	0.0765 JBQ	0.0144	5.62	1
11031	123789-HxCDD	19408-74-3	0.0605 JBQ	0.0132	5.62	1
11031	1234678-HpCDD	35822-46-9	0.464 JB	0.0165	5.62	1
11031	OCDD	3268-87-9	2.43 JB	0.0120	11.2	1
11031	2378-TCDF	51207-31-9	0.0162 JBQ	0.0141	1.12	1
11031	12378-PeCDF	57117-41-6	0.0805 JBQ	0.00825	5.62	1
11031	23478-PeCDF	57117-31-4	0.100 JB	0.00791	5.62	1
11031	123478-HxCDF	70648-26-9	0.0706 JBQ	0.0106	5.62	1
11031	123678-HxCDF	57117-44-9	0.0619 JBQ	0.00960	5.62	1
11031	123789-HxCDF	72918-21-9	0.0728 JBQ	0.00983	5.62	1
11031	234678-HxCDF	60851-34-5	0.0724 JBQ	0.00994	5.62	1
11031	1234678-HpCDF	67562-39-4	0.186 JB	0.00678	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0626 JB	0.00904	5.62	1
11031	OCDF	39001-02-0	0.241 JB	0.0134	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 07:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0197 JBQ	0.0118	1.08	1
11031	12378-PeCDD	40321-76-4	0.0480 JB	0.0179	5.41	1
11031	123478-HxCDD	39227-28-6	0.0399 JBQ	0.0118	5.41	1
11031	123678-HxCDD	57653-85-7	0.0503 JBQ	0.0126	5.41	1
11031	123789-HxCDD	19408-74-3	0.0556 JB	0.0116	5.41	1
11031	1234678-HpCDD	35822-46-9	0.362 JB	0.0137	5.41	1
11031	OCDD	3268-87-9	0.752 JB	0.0135	10.8	1
11031	2378-TCDF	51207-31-9	0.0138 U	0.0138	1.08	1
11031	12378-PeCDF	57117-41-6	0.0463 JBQ	0.00780	5.41	1
11031	23478-PeCDF	57117-31-4	0.0542 JB	0.00746	5.41	1
11031	123478-HxCDF	70648-26-9	0.0476 JB	0.00857	5.41	1
11031	123678-HxCDF	57117-44-9	0.0490 JBQ	0.00846	5.41	1
11031	123789-HxCDF	72918-21-9	0.0653 JB	0.00891	5.41	1
11031	234678-HxCDF	60851-34-5	0.0501 JB	0.00857	5.41	1
11031	1234678-HpCDF	67562-39-4	0.156 JB	0.00724	5.41	1
11031	1234789-HpCDF	55673-89-7	0.0529 JB	0.00913	5.41	1
11031	OCDF	39001-02-0	0.185 JB	0.0131	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 08:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0130 JBQ	0.0130	1.11	1
11031	12378-PeCDD	40321-76-4	0.0404 JBQ	0.0149	5.55	1
11031	123478-HxCDD	39227-28-6	0.0248 JBQ	0.0147	5.55	1
11031	123678-HxCDD	57653-85-7	0.0516 JBQ	0.0151	5.55	1
11031	123789-HxCDD	19408-74-3	0.0572 JBQ	0.0139	5.55	1
11031	1234678-HpCDD	35822-46-9	0.414 JBQ	0.0142	5.55	1
11031	OCDD	3268-87-9	0.763 JB	0.0143	11.1	1
11031	2378-TCDF	51207-31-9	0.0239 JBQ	0.0120	1.11	1
11031	12378-PeCDF	57117-41-6	0.0455 JB	0.00794	5.55	1
11031	23478-PeCDF	57117-31-4	0.0905 JB	0.00805	5.55	1
11031	123478-HxCDF	70648-26-9	0.0543 JB	0.00861	5.55	1
11031	123678-HxCDF	57117-44-9	0.0404 JB	0.00783	5.55	1
11031	123789-HxCDF	72918-21-9	0.0484 JB	0.00850	5.55	1
11031	234678-HxCDF	60851-34-5	0.0574 JB	0.00850	5.55	1
11031	1234678-HpCDF	67562-39-4	0.164 JB	0.00682	5.55	1
11031	1234789-HpCDF	55673-89-7	0.0455 JBQ	0.00884	5.55	1
11031	OCDF	39001-02-0	0.162 JB	0.0134	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 09:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0322 JBQ	0.0134	1.09	1
11031	12378-PeCDD	40321-76-4	0.0610 JBQ	0.0133	5.46	1
11031	123478-HxCDD	39227-28-6	0.0269 JB	0.0119	5.46	1
11031	123678-HxCDD	57653-85-7	0.0403 JBQ	0.0122	5.46	1
11031	123789-HxCDD	19408-74-3	0.0429 JBQ	0.0109	5.46	1
11031	1234678-HpCDD	35822-46-9	0.311 JB	0.0129	5.46	1
11031	OCDD	3268-87-9	0.658 JB	0.0124	10.9	1
11031	2378-TCDF	51207-31-9	0.0118 U	0.0118	1.09	1
11031	12378-PeCDF	57117-41-6	0.0422 JBQ	0.00690	5.46	1
11031	23478-PeCDF	57117-31-4	0.0630 JB	0.00668	5.46	1
11031	123478-HxCDF	70648-26-9	0.0433 JB	0.00869	5.46	1
11031	123678-HxCDF	57117-44-9	0.0307 JBQ	0.00824	5.46	1
11031	123789-HxCDF	72918-21-9	0.0456 JB	0.00780	5.46	1
11031	234678-HxCDF	60851-34-5	0.0461 JB	0.00824	5.46	1
11031	1234678-HpCDF	67562-39-4	0.148 JB	0.00590	5.46	1
11031	1234789-HpCDF	55673-89-7	0.0288 JBQ	0.00724	5.46	1
11031	OCDF	39001-02-0	0.143 JBQ	0.0117	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 10:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0249 JB	0.0112	1.04	1
11031	12378-PeCDD	40321-76-4	0.0544 JBQ	0.0121	5.18	1
11031	123478-HxCDD	39227-28-6	0.0242 JBQ	0.00923	5.18	1
11031	123678-HxCDD	57653-85-7	0.0389 JBQ	0.0102	5.18	1
11031	123789-HxCDD	19408-74-3	0.0402 JB	0.00892	5.18	1
11031	1234678-HpCDD	35822-46-9	0.254 JBQ	0.0130	5.18	1
11031	OCDD	3268-87-9	0.411 JB	0.0140	10.4	1
11031	2378-TCDF	51207-31-9	0.0261 JBQ	0.0112	1.04	1
11031	12378-PeCDF	57117-41-6	0.0572 JBQ	0.00745	5.18	1
11031	23478-PeCDF	57117-31-4	0.0773 JB	0.00672	5.18	1
11031	123478-HxCDF	70648-26-9	0.0472 JB	0.00714	5.18	1
11031	123678-HxCDF	57117-44-9	0.0455 JB	0.00703	5.18	1
11031	123789-HxCDF	72918-21-9	0.0458 JB	0.00745	5.18	1
11031	234678-HxCDF	60851-34-5	0.0382 JB	0.00661	5.18	1
11031	1234678-HpCDF	67562-39-4	0.125 JB	0.00577	5.18	1
11031	1234789-HpCDF	55673-89-7	0.0323 JB	0.00703	5.18	1
11031	OCDF	39001-02-0	0.119 JB	0.0107	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	88	25 - 164
13C12-12378-PeCDD	99	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 10:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11343162402A Moisture Content by 160.3	Sample number(s): 6488961-6488968				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11345001	Sample number(s): 6488961-6488968								
2378-TCDD	0.0310 J	0.0126	1.00	ng/kg	99		67-158		
12378-PeCDD	0.0361 J	0.0137	5.00	ng/kg	104		70-142		
123478-HxCDD	0.0253 J	0.0108	5.00	ng/kg	99		70-164		
123678-HxCDD	0.0333 J	0.0116	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0445 J	0.0110	5.00	ng/kg	108		64-162		
1234678-HpCDD	0.287 J	0.0127	5.00	ng/kg	102		70-140		
OCDD	0.453 J	0.0107	10.0	ng/kg	103		78-144		
2378-TCDF	0.0116 J	0.0115	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0502 J	0.00660	5.00	ng/kg	103		80-134		
23478-PeCDF	0.0712 J	0.00620	5.00	ng/kg	95		68-160		
123478-HxCDF	0.0577 J	0.00900	5.00	ng/kg	104		72-134		
123678-HxCDF	0.0395 J	0.00850	5.00	ng/kg	104		84-130		
123789-HxCDF	0.0509 J	0.00900	5.00	ng/kg	105		78-130		
234678-HxCDF	0.0578 J	0.00890	5.00	ng/kg	102		70-156		
1234678-HpCDF	0.186 J	0.00520	5.00	ng/kg	96		82-122		
1234789-HpCDF	0.0489 J	0.00670	5.00	ng/kg	102		78-138		
OCDF	0.172 J	0.0110	10.0	ng/kg	103		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11343162402A Moisture Content by 160.3	Sample number(s): 6488961-6488968					BKG: P488950 5.0	5.3	7	20
Batch number: 11345001	Sample number(s): 6488961-6488968					UNSPK: 6488961			
2378-TCDD	95	97	67-158	2	25				
12378-PeCDD	98	99	70-142	1	25				
123478-HxCDD	94	93	70-164	1	25				
123678-HxCDD	94	94	76-134	1	25				
123789-HxCDD	102	102	64-162	1	25				
1234678-HpCDD	100	99	70-140	1	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	99	97	78-144	2	25				
2378-TCDF	99	98	75-158	1	25				
12378-PeCDF	101	98	80-134	3	25				
23478-PeCDF	93	95	68-160	2	25				
123478-HxCDF	103	103	72-134	0	25				
123678-HxCDF	100	102	84-130	2	25				
123789-HxCDF	101	103	78-130	2	25				
234678-HxCDF	100	97	70-156	2	25				
1234678-HpCDF	93	92	82-122	1	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	99	98	63-170	0	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11345001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6488961	73	79	69	74	70	62
6488962	71	71	67	73	68	74
6488963	71	73	67	72	70	74
6488964	65	66	65	71	66	71
6488965	73	75	69	71	68	69
6488966	71	68	64	69	64	68
6488967	65	69	64	66	64	70
6488968	88	84	78	80	81	76
Blank	73	84	80	87	83	89
MS	71	71	67	73	68	74
MSD	71	73	67	72	70	74
OPR	66	76	74	79	76	86
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6488961	81	69	62	85	73	77
6488962	83	70	67	81	77	75
6488963	81	67	63	82	77	80
6488964	78	64	60	74	74	75
6488965	74	63	56	82	73	73
6488966	76	63	59	78	72	73
6488967	73	65	58	79	74	76
6488968	92	81	74	99	91	89
Blank	100	82	79	82	90	90
MS	83	70	67	81	77	75
MSD	81	67	63	82	77	80
OPR	92	78	80	76	79	79

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6488961	76	77	68	64	79	
6488962	76	79	74	59	71	
6488963	80	79	72	62	76	
6488964	78	77	67	60	70	
6488965	72	73	61	60	72	
6488966	79	76	68	60	74	
6488967	81	76	65	57	71	
6488968	96	91	84	70	84	
Blank	89	93	87	64	81	
MS	76	79	74	59	71	
MSD	80	79	72	62	76	
OPR	76	86	85	63	76	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

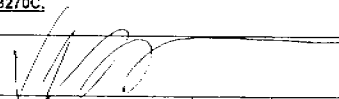
(2) The unspiked result was more than four times the spike added.

acct# 13013

Cup# 1279336

Sample# 6433961-68

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES								Other Instructions and Notes	
NOTES: *Primary Analyses as Indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B		Perchlorate Confirmation by EPA 6850 (10%)
Samplers Signatures: 																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-SS Sleeve				X	X						MS/MSD
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-16 oz jars	X	X				X	X	X	X		MS/MSD
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-SS Sleeve			X	X							
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X	X		
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-SS Sleeve			X	X							
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-SS Sleeve			X	X							
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-SS Sleeve			X	X							
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-SS Sleeve			X	X							
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
Relinquished by: (Signature)	Date/Time 12/02/2011 / 1630		Received for Laboratory by: (Signature)										Laboratory: Lancaster Laboratories, Inc.			
Received by: (Signature)	Date/Time 12/24/09 10		Airbill No.(s) 8767 9857 5030													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 06, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/15/2011
Group Number: 1276467
SDG: DE286
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-002-SA5DS-SB-1.8-2.8 Soil
SL-031-SA5DS-SB-4.0-5.0 Soil
SL-031-SA5DS-SB-9.0-10.0 Soil
SL-013-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6470165
6470166
6470167
6470168

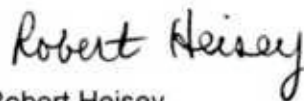
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
1 COPY TO CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Robert Heisey
Senior Specialist

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.72 J	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.70 J	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	11 J	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	1.5 J	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1

The recovery for the sample surrogate is outside the QC acceptance limits as noted on the QC Summary. Since the recovery is within our statistical window of 53-142%, the data is reported.

Metals **SW-846 6010B** **mg/kg** **mg/kg** **mg/kg**

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,000	6.41	21.2	1
07914	Boron	7440-42-8	11.0	0.382	5.30	1
01650	Calcium	7440-70-2	4,180	2.65	21.2	1
01654	Iron	7439-89-6	24,900	2.77	21.2	1
01656	Lithium	7439-93-2	23.3	0.66	2.1	1
01657	Magnesium	7439-95-4	5,800	0.466	10.6	1
06958	Manganese	7439-96-5	331	0.0382	0.530	1
10145	Phosphorus	7723-14-0	615	0.371	10.6	1
01662	Potassium	7440-09-7	2,830	12.0	53.0	1
01667	Sodium	7440-23-5	85.6 J	6.31	106	1
07968	Strontium	7440-24-6	23.9	0.0265	0.530	1
06969	Tin	7440-31-5	2.93 J	0.339	10.6	1
06970	Titanium	7440-32-6	997	0.0753	1.06	1
10146	Zirconium	7440-67-7	8.84	0.488	5.30	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.180 J	0.0777	0.210	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	4.92	0.0840	0.420	2
06126	Barium	7440-39-3	87.8	0.111	0.420	2
06127	Beryllium	7440-41-7	0.529	0.0168	0.105	2
06128	Cadmium	7440-43-9	0.214	0.0462	0.105	2
06131	Chromium	7440-47-3	34.5	0.126	0.420	2
06132	Cobalt	7440-48-4	8.13	0.0210	0.105	2
06133	Copper	7440-50-8	7.03	0.0840	0.420	2
06135	Lead	7439-92-1	6.38	0.0107	0.210	2
06138	Molybdenum	7439-98-7	0.493	0.0525	0.105	2
06139	Nickel	7440-02-0	12.2	0.105	0.420	2
06141	Selenium	7782-49-2	0.143 J	0.0609	0.420	2
06142	Silver	7440-22-4	0.0381 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.206	0.0315	0.105	2
06148	Vanadium	7440-62-2	58.3	0.0231	0.105	2
06149	Zinc	7440-66-6	47.3	0.588	3.15	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.86	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	9.6 U	9.6	32.1	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	1.1	0.21	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.27	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 02:32	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 01:49	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 00:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 10:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/20/2011 23:33	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 18:57	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470165
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0021 SDG#: DE286-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113341026001A	12/02/2011 22:43	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 18:57	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:03	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:03	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 18:57	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:03	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 10:57	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 17:11	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 14:06	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20	1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8	1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8	1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20	1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8	1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	31,100	6.61	21.9	1
07914	Boron	7440-42-8	17.5	0.393	5.46	1
01650	Calcium	7440-70-2	5,480	2.73	21.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	38,200	5.71	43.7	2
01656	Lithium	7439-93-2	39.9	0.68	2.2	1
01657	Magnesium	7439-95-4	9,430	0.481	10.9	1
06958	Manganese	7439-96-5	364	0.0393	0.546	1
10145	Phosphorus	7723-14-0	310	0.383	10.9	1
01662	Potassium	7440-09-7	4,740	12.4	54.6	1
01667	Sodium	7440-23-5	194	6.50	109	1
07968	Strontium	7440-24-6	36.0	0.0273	0.546	1
06969	Tin	7440-31-5	3.63 J	0.350	10.9	1
06970	Titanium	7440-32-6	1,540	0.0776	1.09	1
10146	Zirconium	7440-67-7	9.12	0.503	5.46	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.104 J	0.0817	0.221	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.80	0.0883	0.442	2
06126	Barium	7440-39-3	124	0.117	0.442	2
06127	Beryllium	7440-41-7	0.815	0.0177	0.110	2
06128	Cadmium	7440-43-9	0.159	0.0486	0.110	2
06131	Chromium	7440-47-3	33.0	0.132	0.442	2
06132	Cobalt	7440-48-4	11.2	0.0221	0.110	2
06133	Copper	7440-50-8	16.7	0.0883	0.442	2
06135	Lead	7439-92-1	8.91	0.0113	0.221	2
06138	Molybdenum	7439-98-7	0.371	0.0552	0.110	2
06139	Nickel	7440-02-0	21.9	0.110	0.442	2
06141	Selenium	7782-49-2	0.294 J	0.0640	0.442	2
06142	Silver	7440-22-4	0.0233 J	0.0157	0.110	2
06145	Thallium	7440-28-0	0.410	0.0331	0.110	2
06148	Vanadium	7440-62-2	65.5	0.0243	0.110	2
06149	Zinc	7440-66-6	75.7	0.618	3.31	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	6.2	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.49 J	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.29	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 02:55	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 02:23	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:17	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 11:38	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 10:57	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/20/2011 23:57	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470166
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0314 SDG#: DE286-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:45	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:21	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:04	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 18:24	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 14:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	180	U 180	550	1
04688	Benzyl alcohol	100-51-6	180	U 180	550	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	37	U 37	180	1
04688	4-Methylphenol	106-44-5	37	U 37	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	37	U 37	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	550	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	550	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	180	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.43 J	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	8.5 J	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.80 J	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	13 J	6.6	20	1
10138	Fluoranthene	206-44-0	0.91 J	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.83 J	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.85 J	0.73	1.8	1
10138	Pyrene	129-00-0	0.74 J	0.73	1.8	1
The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.						
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,900	6.49	21.5	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
07914	Boron	7440-42-8	20.0	0.386	5.37	1
01650	Calcium	7440-70-2	6,370	2.68	21.5	1
01654	Iron	7439-89-6	44,600	5.60	42.9	2
01656	Lithium	7439-93-2	44.7	0.67	2.1	1
01657	Magnesium	7439-95-4	10,700	0.472	10.7	1
06958	Manganese	7439-96-5	285	0.0386	0.537	1
10145	Phosphorus	7723-14-0	503	0.376	10.7	1
01662	Potassium	7440-09-7	5,150	12.1	53.7	1
01667	Sodium	7440-23-5	198	6.39	107	1
07968	Strontium	7440-24-6	36.7	0.0268	0.537	1
06969	Tin	7440-31-5	3.11 J	0.343	10.7	1
06970	Titanium	7440-32-6	1,410	0.0762	1.07	1
10146	Zirconium	7440-67-7	7.69	0.494	5.37	1
SW-846 6020						
	mg/kg		mg/kg	mg/kg		
06124	Antimony	7440-36-0	0.0802 U	0.0802	0.217	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.35	0.0867	0.433	2
06126	Barium	7440-39-3	114	0.115	0.433	2
06127	Beryllium	7440-41-7	0.762	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.174	0.0477	0.108	2
06131	Chromium	7440-47-3	31.3	0.130	0.433	2
06132	Cobalt	7440-48-4	11.4	0.0217	0.108	2
06133	Copper	7440-50-8	19.0	0.0850	0.425	2
06135	Lead	7439-92-1	8.86	0.0111	0.217	2
06138	Molybdenum	7439-98-7	0.149	0.0542	0.108	2
06139	Nickel	7440-02-0	21.4	0.108	0.433	2
06141	Selenium	7782-49-2	0.269 J	0.0628	0.433	2
06142	Silver	7440-22-4	0.0466 J	0.0154	0.108	2
06145	Thallium	7440-28-0	0.407	0.0325	0.108	2
06148	Vanadium	7440-62-2	59.4	0.0238	0.108	2
06149	Zinc	7440-66-6	82.6	0.607	3.25	2
SW-846 7471A						
	mg/kg		mg/kg	mg/kg		
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.6	0.89	1.1	1
EPA 314.0						
	ug/kg		ug/kg	ug/kg		
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.5	1
SW-846 7199						
	mg/kg		mg/kg	mg/kg		
05892	3a Cr VI by EPA 7199	18540-29-9	0.36 J	0.22	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.32	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 03:19	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 02:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 11:42	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:47	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:24	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470167
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0319 SDG#: DE286-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:51	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:24	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	11/29/2011 15:24	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:24	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:06	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 19:12	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 14:26	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	71	U 71	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	71	U 71	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	71	U 71	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	13 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.4 U	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,000	6.40	21.2	1
07914	Boron	7440-42-8	10.1	0.381	5.29	1
01650	Calcium	7440-70-2	40,700	2.64	21.2	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,500	2.76	21.2	1
01656	Lithium	7439-93-2	26.0	0.66	2.1	1
01657	Magnesium	7439-95-4	5,360	0.465	10.6	1
06958	Manganese	7439-96-5	335	0.0381	0.529	1
10145	Phosphorus	7723-14-0	443	0.370	10.6	1
01662	Potassium	7440-09-7	2,560	12.0	52.9	1
01667	Sodium	7440-23-5	79.9 J	6.29	106	1
07968	Strontium	7440-24-6	38.5	0.0264	0.529	1
06969	Tin	7440-31-5	2.58 J	0.338	10.6	1
06970	Titanium	7440-32-6	918	0.0751	1.06	1
10146	Zirconium	7440-67-7	3.77 J	0.486	5.29	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0798 J	0.0783	0.212	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.25	0.0846	0.423	2
06126	Barium	7440-39-3	97.4	0.112	0.423	2
06127	Beryllium	7440-41-7	0.658	0.0169	0.106	2
06128	Cadmium	7440-43-9	0.235	0.0465	0.106	2
06131	Chromium	7440-47-3	24.0	0.127	0.423	2
06132	Cobalt	7440-48-4	9.23	0.0212	0.106	2
06133	Copper	7440-50-8	11.3	0.0846	0.423	2
06135	Lead	7439-92-1	7.62	0.0108	0.212	2
06138	Molybdenum	7439-98-7	0.475	0.0529	0.106	2
06139	Nickel	7440-02-0	18.0	0.106	0.423	2
06141	Selenium	7782-49-2	0.182 J	0.0613	0.423	2
06142	Silver	7440-22-4	0.0203 J	0.0150	0.106	2
06145	Thallium	7440-28-0	0.295	0.0317	0.106	2
06148	Vanadium	7440-62-2	44.4	0.0233	0.106	2
06149	Zinc	7440-66-6	62.3	0.592	3.17	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.88	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.7 U	9.7	32.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.43 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.82	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11320SLK026	12/02/2011 03:43	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11320SLJ026	12/02/2011 03:31	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11320SLJ026	11/17/2011 11:00	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11320SLK026	11/17/2011 11:00	Olivia Arosemena	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 01:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/28/2011 16:51	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470168
LLI Group # 1276467
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 12/06/2011 13:47

S0134 SDG#: DE286-04*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:30	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:53	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:07	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11320621201A	11/16/2011 12:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11320621202A	11/17/2011 19:36	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 14:40	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11320621201A	11/16/2011 05:40	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11320621202A	11/16/2011 05:45	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11320SLJ026 Sample number(s): 6470165-6470168									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	91		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	90		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	92		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	96		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	111		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	106		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	97		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	93		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	103		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	98		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	104		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	112		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	103		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	100		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	100		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	97		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	105		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	87		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	89		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	71		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	96		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	93		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	90		72-119		
Batch number: 11320SLK026 Sample number(s): 6470165-6470168									
Aniline	170 U	170.	500	ug/kg	72		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	43		15-121		
Benzoic acid	170 U	170.	500	ug/kg	94		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	90		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	96		73-114		
Carbazole	17 U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	51		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	92		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	88		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	86		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	73		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	94		74-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Dibenzofuran	17 U	17.	170	ug/kg	92		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	87		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	86		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	84		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	48		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	96		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	99		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	101		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	91		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	85		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	94		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	97		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	103		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	95		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	90		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	104		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	88		61-109		
Isophorone	17 U	17.	170	ug/kg	93		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	98		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	86		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	92		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	87		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	66		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	90		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	90		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	81		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	84		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	99		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	81		51-117		
Phenol	17 U	17.	170	ug/kg	88		58-112		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	88		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	90		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	93		78-111		
Batch number: 113230004A	Sample number(s): 6470165-6470168								
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113211026003A	Sample number(s): 6470165-6470168								
Antimony	0.0733 U	0.0733	0.198	mg/kg	62		40-227		
Arsenic	0.0792 U	0.0792	0.396	mg/kg	95		83-111		
Beryllium	0.0158 U	0.0158	0.0990	mg/kg	95		84-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	96		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	103		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	96		85-114		
Lead	0.0101 U	0.0101	0.198	mg/kg	97		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	96		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	97		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	99		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	98		76-110		
Zinc	0.985 J	0.554	2.97	mg/kg	93		82-110		
Batch number: 113211026003B	Sample number(s): 6470165-6470168								
Selenium	0.0574 U	0.0574	0.396	mg/kg	97		79-110		
Batch number: 113211026003C	Sample number(s): 6470165-6470168								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	94		80-110		
Batch number: 113211026003D	Sample number(s): 6470165-6470168								
Barium	0.105 U	0.105	0.396	mg/kg	93		83-110		
Batch number: 113215708005	Sample number(s): 6470165-6470168								
Aluminum	8.93 J	5.82	19.2	mg/kg	76		40-127		
Boron	0.644 J	0.346	4.81	mg/kg	91		83-110		
Calcium	9.39 J	2.40	19.2	mg/kg	91		81-110		
Iron	3.43 J	2.51	19.2	mg/kg	81		47-129		
Lithium	0.60 U	0.60	1.9	mg/kg	102		80-120		
Magnesium	0.949 J	0.423	9.62	mg/kg	82		63-116		
Manganese	0.0365 J	0.0346	0.481	mg/kg	95		85-116		
Phosphorus	1.86 J	0.337	9.62	mg/kg	102		80-120		
Potassium	10.9 U	10.9	48.1	mg/kg	93		71-110		
Sodium	5.72 U	5.72	96.2	mg/kg	93		76-110		
Strontium	0.0596 J	0.0240	0.481	mg/kg	92		84-110		
Tin	1.53 J	0.308	9.62	mg/kg	90		86-120		
Titanium	0.0740 J	0.0683	0.962	mg/kg	84		80-120		
Zirconium	0.442 U	0.442	4.81	mg/kg	106		80-120		
Batch number: 113215711003	Sample number(s): 6470165-6470168								
Mercury	0.0067 U	0.0067	0.0956	mg/kg	89		83-119		
Batch number: 113341026001A	Sample number(s): 6470165-6470168								
Copper	0.0777 U	0.0777	0.388	mg/kg	100		81-110		
Batch number: 11320621201A	Sample number(s): 6470165-6470168								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	92		90-110		
Batch number: 11320621202A	Sample number(s): 6470165-6470168								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	95		85-115		
Batch number: 11332243201A	Sample number(s): 6470165-6470168								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11332039401A	Sample number(s): 6470165-6470168								
17a pH by 9045C					100		95-105		
Batch number: 11325162402B	Sample number(s): 6470165-6470168								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11320SLJ026 Sample number(s): 6470165-6470168 UNSPK: P465418									
Acenaphthene	89	92	63-105	3	30				
Acenaphthylene	89	93	67-114	4	30				
Anthracene	94	94	73-115	1	30				
Benzo(a)anthracene	99	97	59-128	2	30				
Benzo(a)pyrene	77	97	58-142	23	30				
Benzo(b)fluoranthene	78	103	54-163	28	30				
Benzo(g,h,i)perylene	61	88	33-141	35*	30				
Benzo(k)fluoranthene	81	90	57-153	10	30				
Butylbenzylphthalate	129	111	57-173	14	30				
Di-n-butylphthalate	146	121	65-148	19	30				
Chrysene	95	92	67-123	2	30				
Dibenz(a,h)anthracene	73	96	22-133	27	30				
Diethylphthalate	128	120	70-136	6	30				
Dimethylphthalate	106	110	74-118	4	30				
Bis(2-Ethylhexyl)phthalate	151	136	39-167	11	30				
Fluoranthene	112	101	51-149	9	30				
Fluorene	97	98	66-122	2	30				
Indeno(1,2,3-cd)pyrene	70	94	21-143	30	30				
1-Methylnaphthalene	86	85	72-123	2	30				
2-Methylnaphthalene	86	85	64-103	1	30				
Naphthalene	91	88	61-102	3	30				
N-Nitrosodimethylamine	102	86	48-113	18	30				
Di-n-octylphthalate	94	138	40-192	37*	30				
Phenanthrene	95	92	62-122	4	30				
Pyrene	89	85	51-131	4	30				
Batch number: 11320SLK026 Sample number(s): 6470165-6470168 UNSPK: P465418									
Aniline	78	62	18-116	22	30				
Benzydine	0*	18*	35-141	200*	30				
Benzoic acid	102	84	10-173	20	30				
Benzyl alcohol	96	83	67-115	14	30				
4-Bromophenyl-phenylether	107	89	67-129	18	30				
Carbazole	98	83	64-120	16	30				
4-Chloro-3-methylphenol	102	88	62-122	15	30				
4-Chloroaniline	55	48	13-107	12	30				
bis(2-Chloroethoxy)methane	98	83	75-104	16	30				
bis(2-Chloroethyl)ether	95	80	60-116	17	30				
bis(2-Chloroisopropyl)ether	93	78	55-142	18	30				
2-Chloronaphthalene	79	67	50-141	16	30				
2-Chlorophenol	101	86	73-121	16	30				
4-Chlorophenyl-phenylether	98	86	80-109	13	30				
Dibenzofuran	98	85	71-112	15	30				
1,2-Dichlorobenzene	94	80	66-108	16	30				
1,3-Dichlorobenzene	92	78	63-109	16	30				
1,4-Dichlorobenzene	90	77	58-108	16	30				
3,3'-Dichlorobenzidine	61	49	28-109	22	30				
2,4-Dichlorophenol	103	89	66-123	14	30				
2,4-Dimethylphenol	105	89	68-118	17	30				
3,5-Dimethylphenol	103	88	71-127	16	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
4,6-Dinitro-2-methylphenol	97	82	11-126	16	30				
2,4-Dinitrophenol	80	73	20-143	10	30				
2,4-Dinitrotoluene	99	87	56-129	13	30				
2,6-Dinitrotoluene	103	89	69-123	14	30				
1,2-Diphenylhydrazine	113	95	71-129	18	30				
Hexachlorobenzene	107	87	77-114	20	30				
Hexachlorobutadiene	97	83	62-120	16	30				
Hexachlorocyclopentadiene	131	92	10-153	35*	30				
Hexachloroethane	93	76	57-109	19	30				
Isophorone	98	83	73-102	16	30				
2-Methylphenol	105	89	75-111	17	30				
4-Methylphenol	94	79	59-123	17	30				
2-Nitroaniline	99	86	67-125	14	30				
3-Nitroaniline	88	80	59-122	10	30				
4-Nitroaniline	79	63	41-109	23	30				
Nitrobenzene	95	81	57-125	16	30				
2-Nitrophenol	98	84	56-127	15	30				
4-Nitrophenol	89	76	37-129	17	30				
N-Nitroso-di-n-propylamine	90	75	60-116	18	30				
N-Nitrosodiphenylamine	110	90	71-122	20	30				
Pentachlorophenol	73	76	28-127	4	30				
Phenol	94	79	58-126	17	30				
1,2,4-Trichlorobenzene	96	79	72-115	19	30				
2,4,5-Trichlorophenol	100	86	58-129	15	30				
2,4,6-Trichlorophenol	103	90	56-134	14	30				

Batch number: 113230004A
PCB-1016
PCB-1260

Sample number(s): 6470165-6470168 UNSPK: 6470165
86 91 29-146 5 50
99 109 39-149 9 50

Batch number: 113211026003A

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165									
Antimony	16*	13*	75-125	9	20	0.168 J	0.108 J	44* (1)	20
Arsenic	119	150*	75-125	10	20	4.59	4.39	5	20
Beryllium	88	108	75-125	14	20	0.494	0.492	0 (1)	20
Cadmium	111	114	75-125	5	20	0.200	0.145	32* (1)	20
Chromium	112	141*	75-125	7	20	32.2	31.6	2	20
Cobalt	106	116	75-125	10	20	7.60	6.23	20	20
Lead	118	134*	75-125	6	20	5.96	5.42	9	20
Nickel	125	140*	75-125	8	20	11.4	11.2	2	20
Silver	107	106	75-125	2	20	0.0356 J	0.0244 J	38* (1)	20
Thallium	111	103	75-125	3	20	0.192	0.170	12 (1)	20
Vanadium	142 (2)	183 (2)	75-125	6	20	54.5	54.1	1	20
Zinc	110 (2)	169 (2)	75-125	11	20	44.2	41.9	5	20

Batch number: 113211026003B
Selenium

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165
92 105 75-125 15 20 0.134 J 0.174 J 26* (1) 20

Batch number: 113211026003C
Molybdenum

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165
102 105 75-125 6 20 0.461 0.438 5 (1) 20

Batch number: 113211026003D
Barium

Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165
62 (2) 141 (2) 75-125 9 20 82.0 63.9 25* 20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113215708005	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
Aluminum	1462 (2)	1339 (2)	75-125	1	20	16,800	17,300	3	20
Boron	90	91	84-115	1	20	10.2	10.3	0 (1)	20
Calcium	215 (2)	238 (2)	75-125	2	20	3,910	4,000	2	20
Iron	135 (2)	269 (2)	75-125	1	20	23,200	23,500	1	20
Lithium	98	97	82-114	2	20	21.8	21.5	1	20
Magnesium	36 (2)	53 (2)	75-125	1	20	5,420	5,190	4	20
Manganese	148 (2)	118 (2)	75-125	4	20	309	329	6	20
Phosphorus	44 (2)	75 (2)	75-125	5	20	575	544	5	20
Potassium	103	126*	75-125	6	20	2,640	2,500	5	20
Sodium	97	95	75-125	1	20	80.0	J 82.5	J 3 (1)	20
Strontium	98	98	75-115	0	20	22.3	24.4	9	20
Tin	85	85	80-110	0	20	2.74	J 2.78	J 2 (1)	20
Titanium	374 (2)	331 (2)	75-125	3	20	931	974	5	20
Zirconium	94	92	81-110	2	20	8.25	10.1	20 (1)	20
Batch number: 113215711003	Sample number(s): 6470165-6470168 UNSPK: P473891 BKG: P473891								
Mercury	97	102	65-135	5	20	0.0085 J	0.0082 J	4 (1)	20
Batch number: 113341026001A	Sample number(s): 6470165-6470168 UNSPK: 6470168 BKG: 6470168								
Copper	106	110	75-125	2	20	10.5	10.9	4	20
Batch number: 11320621201A	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
11a Anions by 300.0 - Fluoride	63*		80-120			1.1	1.6	39* (1)	20
Batch number: 11320621202A	Sample number(s): 6470165-6470168 UNSPK: 6470165 BKG: 6470165								
7a Perchlorate EPA 314.0	93		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11332243201A	Sample number(s): 6470165-6470168 UNSPK: P475869 BKG: P475869								
3a Cr VI by EPA 7199	99		75-125			1.3	0.43 J	100* (1)	20
Batch number: 11332039401A	Sample number(s): 6470165-6470168 BKG: P473895								
17a pH by 9045C						8.71	8.72	0	3
Batch number: 11325162402B	Sample number(s): 6470165-6470168 BKG: 6470165								
Moisture Content by 160.3						6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11320SLJ026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6470165	136*	96	94
6470166	133*	91	93
6470167	131*	93	94

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/06/11 at 01:47 PM

Group Number: 1276467

Surrogate Quality Control

6470168	125	90	89
Blank	113	86	92
LCS	119	88	90
MS	126	84	80
MSD	123	86	84

Limits: 40-130 45-130 45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11320SLK026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6470165	96	96	99	90	97	92
6470166	92	94	102	86	92	89
6470167	94	97	100	88	94	91
6470168	101	101	94	90	97	90
Blank	88	93	92	86	91	89
LCS	93	95	95	87	91	83
MS	99	101	100	93	98	91
MSD	87	89	92	81	88	80

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6470165	113	126*
6470166	96	108
6470167	108	116
6470168	95	107
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112

Limits: 53-139 45-120

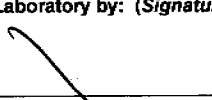
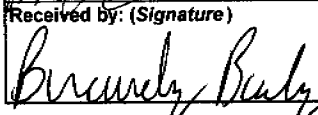
*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

13013 1276467 6470165-68

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraHf under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers										
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-SS Sleeve			X	X						
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-SS Sleeve			X	X						
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-SS Sleeve			X	X						
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X		
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)										Laboratory:		
	11/14/2011 / 1630												Lancaster Laboratories, Inc.		
Received by: (Signature)	Date/Time		Airbill No.(s)												
	11-15-11 915		8767 9857 4950												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

November 30, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/15/2011
Group Number: 1276469
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-002-SA5DS-SB-1.8-2.8 Soil
SL-031-SA5DS-SB-4.0-5.0 Soil
SL-031-SA5DS-SB-9.0-10.0 Soil
SL-013-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6470172
6470173
6470174
6470175

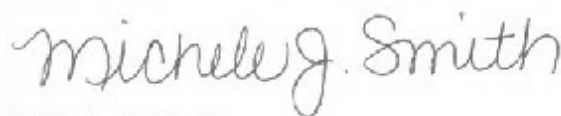
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	6.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0477 JQ	0.0424	1.04	1
11031	12378-PeCDD	40321-76-4	0.0570 J	0.0355	5.21	1
11031	123478-HxCDD	39227-28-6	0.0257 JBQ	0.0231	5.21	1
11031	123678-HxCDD	57653-85-7	0.204 JBQ	0.0241	5.21	1
11031	123789-HxCDD	19408-74-3	0.410 JB	0.0241	5.21	1
11031	1234678-HpCDD	35822-46-9	0.901 JB	0.0237	5.21	1
11031	OCDD	3268-87-9	4.74 JB	0.0219	10.4	1
11031	2378-TCDF	51207-31-9	0.0565 J	0.0426	1.04	1
11031	12378-PeCDF	57117-41-6	0.0775 JB	0.0198	5.21	1
11031	23478-PeCDF	57117-31-4	0.0966 JBQ	0.0197	5.21	1
11031	123478-HxCDF	70648-26-9	0.0173 U	0.0173	5.21	1
11031	123678-HxCDF	57117-44-9	0.0626 JB	0.0147	5.21	1
11031	123789-HxCDF	72918-21-9	0.354 JB	0.0188	5.21	1
11031	234678-HxCDF	60851-34-5	0.0647 JBQ	0.0141	5.21	1
11031	1234678-HpCDF	67562-39-4	0.164 JBQ	0.0101	5.21	1
11031	1234789-HpCDF	55673-89-7	0.0264 JBQ	0.0143	5.21	1
11031	OCDF	39001-02-0	0.323 JB	0.0266	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	86	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	71	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0021 SDG#: DX155-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-002-SA5DS-SB-1.8-2.8 Soil
SSFL Area IV Collocated Soil Sampling
SL-002-SA5DS-SB

LLI Sample # SW 6470172
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 09:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/15/2011 09:15

Suite 210

Reported: 11/30/2011 12:50

Chantilly VA 20151

D0021 SDG#: DX155-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 17:07	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0469 U	0.0469	1.07	1
11031	12378-PeCDD	40321-76-4	0.101 JQ	0.0339	5.36	1
11031	123478-HxCDD	39227-28-6	0.0269 U	0.0269	5.36	1
11031	123678-HxCDD	57653-85-7	0.250 JBQ	0.0280	5.36	1
11031	123789-HxCDD	19408-74-3	0.174 JBQ	0.0279	5.36	1
11031	1234678-HpCDD	35822-46-9	0.865 JB	0.0281	5.36	1
11031	OCDD	3268-87-9	2.31 JB	0.0202	10.7	1
11031	2378-TCDF	51207-31-9	0.0333 U	0.0333	1.07	1
11031	12378-PeCDF	57117-41-6	0.0297 JBQ	0.0172	5.36	1
11031	23478-PeCDF	57117-31-4	0.0469 JBQ	0.0165	5.36	1
11031	123478-HxCDF	70648-26-9	0.0385 JBQ	0.0155	5.36	1
11031	123678-HxCDF	57117-44-9	0.0170 JBQ	0.0136	5.36	1
11031	123789-HxCDF	72918-21-9	0.0673 JBQ	0.0165	5.36	1
11031	234678-HxCDF	60851-34-5	0.0427 JBQ	0.0128	5.36	1
11031	1234678-HpCDF	67562-39-4	0.129 JB	0.0107	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0387 JBQ	0.0164	5.36	1
11031	OCDF	39001-02-0	0.179 JB	0.0281	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	88	32 - 141
13C12-123678-HxCDD	87	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470173
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0314 SDG#: DX155-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 18:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0449 U	0.0449	1.11	1
11031	12378-PeCDD	40321-76-4	0.0348 U	0.0348	5.57	1
11031	123478-HxCDD	39227-28-6	0.0458 JB	0.0257	5.57	1
11031	123678-HxCDD	57653-85-7	0.0913 JBQ	0.0262	5.57	1
11031	123789-HxCDD	19408-74-3	0.0672 JB	0.0262	5.57	1
11031	1234678-HpCDD	35822-46-9	0.450 JBQ	0.0249	5.57	1
11031	OCDD	3268-87-9	2.45 JB	0.0235	11.1	1
11031	2378-TCDF	51207-31-9	0.0330 U	0.0330	1.11	1
11031	12378-PeCDF	57117-41-6	0.0519 JB	0.0170	5.57	1
11031	23478-PeCDF	57117-31-4	0.0422 JB	0.0164	5.57	1
11031	123478-HxCDF	70648-26-9	0.0401 JBQ	0.0143	5.57	1
11031	123678-HxCDF	57117-44-9	0.0350 JBQ	0.0127	5.57	1
11031	123789-HxCDF	72918-21-9	0.0350 JBQ	0.0148	5.57	1
11031	234678-HxCDF	60851-34-5	0.0548 JB	0.0117	5.57	1
11031	1234678-HpCDF	67562-39-4	0.113 JBQ	0.0115	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0445 JBQ	0.0173	5.57	1
11031	OCDF	39001-02-0	0.229 JB	0.0324	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	87	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	85	28 - 130
13C12-1234678-HpCDD	89	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-031-SA5DS-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-031-SA5DS-SB

LLI Sample # SW 6470174
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 11:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0319 SDG#: DX155-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	7.3	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0444 U	0.0444	1.07	1
11031	12378-PeCDD	40321-76-4	0.0309 U	0.0309	5.35	1
11031	123478-HxCDD	39227-28-6	0.0213 U	0.0213	5.35	1
11031	123678-HxCDD	57653-85-7	0.0431 JBQ	0.0215	5.35	1
11031	123789-HxCDD	19408-74-3	0.0383 JB	0.0211	5.35	1
11031	1234678-HpCDD	35822-46-9	0.375 JB	0.0294	5.35	1
11031	OCDD	3268-87-9	1.47 JB	0.0227	10.7	1
11031	2378-TCDF	51207-31-9	0.0399 U	0.0399	1.07	1
11031	12378-PeCDF	57117-41-6	0.0176 U	0.0176	5.35	1
11031	23478-PeCDF	57117-31-4	0.0173 U	0.0173	5.35	1
11031	123478-HxCDF	70648-26-9	0.0533 JBQ	0.0138	5.35	1
11031	123678-HxCDF	57117-44-9	0.0159 JBQ	0.0128	5.35	1
11031	123789-HxCDF	72918-21-9	0.0524 JBQ	0.0148	5.35	1
11031	234678-HxCDF	60851-34-5	0.0400 JBQ	0.0117	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0864 JBQ	0.0100	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0659 JBQ	0.0150	5.35	1
11031	OCDF	39001-02-0	0.223 JBQ	0.0379	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	83	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	90	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	79	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-013-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-013-SA8S-SB

LLI Sample # SW 6470175
LLI Group # 1276469
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/14/2011 14:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/15/2011 09:15

Reported: 11/30/2011 12:50

D0134 SDG#: DX155-06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 19:57	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6470172-6470175								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6470172-6470175					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 11/30/11 at 12:50 PM

Group Number: 1276469

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6470172	65	75	60	68	73	65
6470173	72	80	68	78	83	75
6470174	70	81	64	74	81	74
6470175	69	78	66	73	79	72
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6470172	80	67	71	77	77	75
6470173	94	75	80	84	88	87
6470174	92	74	78	84	87	86
6470175	86	72	70	79	82	83
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6470172	73	77	86	65	80	
6470173	84	90	98	69	87	
6470174	85	89	97	69	87	
6470175	81	84	90	69	83	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

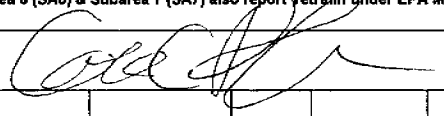
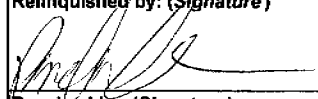
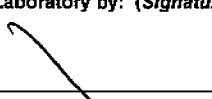
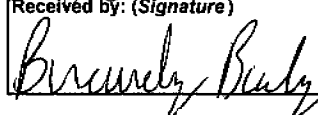
** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1276469 6470172-75

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																	Other instructions and Notes
Samplers Signatures: 						*Metals EPA 601060208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers												
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-SS Sleeve			X	X								
SL-002-SA5DS-SB-1.8-2.8	11.14.11	0925	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-SS Sleeve			X	X								
SL-031-SA5DS-SB-4.0-5.0	11.14.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-SS Sleeve			X	X								
SL-031-SA5DS-SB-9.0-10.0	11.14.11	1125	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-SS Sleeve			X	X								
SL-013-SA8S-SB-4.0-5.0	11.14.11	1405	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:			
		11/14/2011 / 1630												Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)													
		11-15-11 915		8767 9857 4950													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/17/2011

Group Number: 1277028

SDG: DE287

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-007-SA8S-SB-4.0-5.0 Soil
SL-005-SA8S-SB-3.5-4.5 Soil
SL-009-SA8S-SB-4.0-5.0 Soil
SL-009-SA8S-SB-7.0-8.0 Soil
SL-024-SA8S-SB-4.0-5.0 Soil
SL-024-SA8S-SB-7.0-8.0 SoilLancaster Labs (LLI) #6473891
6473892
6473893
6473894
6473895
6473896

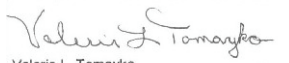
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,200	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.1 J	6.8	20	1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9	1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.2 U	1.2	3.8	1
10225	Aroclor 5442	12642-23-8	1.2 U	1.2	3.8	1
10225	Aroclor 5460	11126-42-4	1.2 U	1.2	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,600	6.78	22.4	1
07914	Boron	7440-42-8	15.3	0.404	5.61	1
01650	Calcium	7440-70-2	172,000	14.0	112	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,700	2.93	22.4	1
01656	Lithium	7439-93-2	16.1	0.70	2.2	1
01657	Magnesium	7439-95-4	5,530	0.493	11.2	1
06958	Manganese	7439-96-5	382	0.0404	0.561	1
10145	Phosphorus	7723-14-0	282	0.392	11.2	1
01662	Potassium	7440-09-7	2,580	12.7	56.1	1
01667	Sodium	7440-23-5	242	6.67	112	1
07968	Strontium	7440-24-6	219	0.0280	0.561	1
06969	Tin	7440-31-5	2.48 J	0.359	11.2	1
06970	Titanium	7440-32-6	543	0.0796	1.12	1
10146	Zirconium	7440-67-7	3.96 J	0.516	5.61	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.103 J	0.0830	0.224	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.29	0.0897	0.448	2
06126	Barium	7440-39-3	84.3	0.119	0.448	2
06127	Beryllium	7440-41-7	0.625	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.456	0.0493	0.112	2
06131	Chromium	7440-47-3	30.7	0.135	0.448	2
06132	Cobalt	7440-48-4	9.54	0.0224	0.112	2
06133	Copper	7440-50-8	15.1	0.0888	0.444	2
06135	Lead	7439-92-1	10.8	0.0114	0.224	2
06138	Molybdenum	7439-98-7	0.317	0.0561	0.112	2
06139	Nickel	7440-02-0	23.5	0.112	0.448	2
06141	Selenium	7782-49-2	0.201 J	0.0650	0.448	2
06142	Silver	7440-22-4	0.0159 U	0.0159	0.112	2
06145	Thallium	7440-28-0	0.244	0.0336	0.112	2
06148	Vanadium	7440-62-2	53.0	0.0247	0.112	2
06149	Zinc	7440-66-6	54.5	0.628	3.36	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0098 J	0.0080	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.1	0.92	1.2	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.2	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.70	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 09:28	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 12:35	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 02:12	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:45	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:55	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:17	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473891
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8701 SDG#: DE287-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:53	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:08	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 05:43	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 17:30	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:00	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.8	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6	U 6.6	20	1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.8	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.8	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20	1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.8	1
10138	Pyrene	129-00-0	0.74	U 0.74	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,700	6.53	21.6	1
07914	Boron	7440-42-8	17.6	0.389	5.40	1
01650	Calcium	7440-70-2	161,000	13.5	108	5

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 5

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	18,800	2.82	21.6	1
01656	Lithium	7439-93-2	15.0	0.67	2.2	1
01657	Magnesium	7439-95-4	6,040	0.475	10.8	1
06958	Manganese	7439-96-5	305	0.0389	0.540	1
10145	Phosphorus	7723-14-0	349	0.378	10.8	1
01662	Potassium	7440-09-7	2,780	12.2	54.0	1
01667	Sodium	7440-23-5	1,030	6.42	108	1
07968	Strontium	7440-24-6	256	0.0270	0.540	1
06969	Tin	7440-31-5	2.21 J	0.345	10.8	1
06970	Titanium	7440-32-6	620	0.0766	1.08	1
10146	Zirconium	7440-67-7	4.75 J	0.496	5.40	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0854 J	0.0822	0.222	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.98	0.0889	0.444	2
06126	Barium	7440-39-3	114	0.118	0.444	2
06127	Beryllium	7440-41-7	0.568	0.0178	0.111	2
06128	Cadmium	7440-43-9	0.240	0.0489	0.111	2
06131	Chromium	7440-47-3	28.5	0.133	0.444	2
06132	Cobalt	7440-48-4	8.89	0.0222	0.111	2
06133	Copper	7440-50-8	14.9	0.0880	0.440	2
06135	Lead	7439-92-1	9.50	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.296	0.0556	0.111	2
06139	Nickel	7440-02-0	17.5	0.111	0.444	2
06141	Selenium	7782-49-2	0.181 J	0.0645	0.444	2
06142	Silver	7440-22-4	0.0158 U	0.0158	0.111	2
06145	Thallium	7440-28-0	0.220	0.0333	0.111	2
06148	Vanadium	7440-62-2	49.4	0.0244	0.111	2
06149	Zinc	7440-66-6	48.1	0.622	3.33	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0188 J	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	8.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.22 U	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	9.23	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 10:41	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 15:28	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 02:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:49	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06969	Tin	SW-846 6010B	2	113215708005	11/28/2011 16:59	John P Hook	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:22	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473892
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8702 SDG#: DE287-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:55	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 19:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:57	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:15	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 06:25	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 18:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:07	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,800	6.64	22.0	1
07914	Boron	7440-42-8	13.5	0.395	5.49	1
01650	Calcium	7440-70-2	79,200	5.49	43.9	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,000	2.86	22.0	1
01656	Lithium	7439-93-2	31.1	0.68	2.2	1
01657	Magnesium	7439-95-4	7,210	0.483	11.0	1
06958	Manganese	7439-96-5	271	0.0395	0.549	1
10145	Phosphorus	7723-14-0	461	0.384	11.0	1
01662	Potassium	7440-09-7	3,580	12.4	54.9	1
01667	Sodium	7440-23-5	180	6.53	110	1
07968	Strontium	7440-24-6	100	0.0274	0.549	1
06969	Tin	7440-31-5	3.04 J	0.351	11.0	1
06970	Titanium	7440-32-6	631	0.0779	1.10	1
10146	Zirconium	7440-67-7	6.59	0.505	5.49	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0836 U	0.0836	0.226	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.31	0.0904	0.452	2
06126	Barium	7440-39-3	67.4	0.120	0.452	2
06127	Beryllium	7440-41-7	0.634	0.0181	0.113	2
06128	Cadmium	7440-43-9	0.355	0.0497	0.113	2
06131	Chromium	7440-47-3	30.0	0.136	0.452	2
06132	Cobalt	7440-48-4	9.27	0.0226	0.113	2
06133	Copper	7440-50-8	17.0	0.0904	0.452	2
06135	Lead	7439-92-1	9.07	0.0115	0.226	2
06138	Molybdenum	7439-98-7	0.235	0.0565	0.113	2
06139	Nickel	7440-02-0	17.3	0.113	0.452	2
06141	Selenium	7782-49-2	0.250 J	0.0656	0.452	2
06142	Silver	7440-22-4	0.0229 J	0.0160	0.113	2
06145	Thallium	7440-28-0	0.293	0.0339	0.113	2
06148	Vanadium	7440-62-2	41.8	0.0249	0.113	2
06149	Zinc	7440-66-6	47.1	0.633	3.39	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.2	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.23 U	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.65	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011	11:05	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011	16:03	Joseph M Gambler	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011	11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011	18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011	02:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011	00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/28/2011	17:03	John P Hook	2
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011	11:15	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011	00:26	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011	15:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011	15:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473893
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8703 SDG#: DE287-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:57	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 06:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 19:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 15:20	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	73	U 73	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	73	U 73	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	73	U 73	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.4 U	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	10,700	6.52	21.5	1
07914	Boron	7440-42-8	10.2	0.388	5.39	1
01650	Calcium	7440-70-2	177,000	13.5	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	14,500	2.81	21.5	1
01656	Lithium	7439-93-2	15.7	0.67	2.2	1
01657	Magnesium	7439-95-4	4,280	0.474	10.8	1
06958	Manganese	7439-96-5	516	0.0388	0.539	1
10145	Phosphorus	7723-14-0	346	0.377	10.8	1
01662	Potassium	7440-09-7	2,270	12.2	53.9	1
01667	Sodium	7440-23-5	155	6.41	108	1
07968	Strontium	7440-24-6	166	0.0269	0.539	1
06969	Tin	7440-31-5	2.38 J	0.345	10.8	1
06970	Titanium	7440-32-6	374	0.0765	1.08	1
10146	Zirconium	7440-67-7	3.53 J	0.496	5.39	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0774 U	0.0774	0.209	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.06	0.0837	0.419	2
06126	Barium	7440-39-3	61.2	0.111	0.419	2
06127	Beryllium	7440-41-7	0.586	0.0167	0.105	2
06128	Cadmium	7440-43-9	0.322	0.0460	0.105	2
06131	Chromium	7440-47-3	26.6	0.126	0.419	2
06132	Cobalt	7440-48-4	8.41	0.0209	0.105	2
06133	Copper	7440-50-8	9.74	0.0862	0.431	2
06135	Lead	7439-92-1	8.28	0.0107	0.209	2
06138	Molybdenum	7439-98-7	0.246	0.0523	0.105	2
06139	Nickel	7440-02-0	15.3	0.105	0.419	2
06141	Selenium	7782-49-2	0.185 J	0.0607	0.419	2
06142	Silver	7440-22-4	0.0191 J	0.0149	0.105	2
06145	Thallium	7440-28-0	0.254	0.0314	0.105	2
06148	Vanadium	7440-62-2	37.1	0.0230	0.105	2
06149	Zinc	7440-66-6	42.3	0.586	3.14	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.75	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 11:29	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 20:07	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 11:57	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:26	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:30	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473894
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8704 SDG#: DE287-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 22:59	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:00	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:22	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 19:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:21	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.2 J	6.6	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	14,300	6.60	21.8	1
07914	Boron	7440-42-8	11.8	0.393	5.45	1
01650	Calcium	7440-70-2	109,000	13.6	109	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	20,800	2.85	21.8	1
01656	Lithium	7439-93-2	21.5	0.68	2.2	1
01657	Magnesium	7439-95-4	5,150	0.480	10.9	1
06958	Manganese	7439-96-5	296	0.0393	0.545	1
10145	Phosphorus	7723-14-0	397	0.382	10.9	1
01662	Potassium	7440-09-7	2,800	12.3	54.5	1
01667	Sodium	7440-23-5	123	6.49	109	1
07968	Strontium	7440-24-6	128	0.0273	0.545	1
06969	Tin	7440-31-5	2.77 J	0.349	10.9	1
06970	Titanium	7440-32-6	518	0.0775	1.09	1
10146	Zirconium	7440-67-7	4.81 J	0.502	5.45	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0831 U	0.0831	0.225	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.01	0.0899	0.449	2
06126	Barium	7440-39-3	67.0	0.119	0.449	2
06127	Beryllium	7440-41-7	0.629	0.0180	0.112	2
06128	Cadmium	7440-43-9	0.205	0.0494	0.112	2
06131	Chromium	7440-47-3	31.7	0.135	0.449	2
06132	Cobalt	7440-48-4	7.51	0.0225	0.112	2
06133	Copper	7440-50-8	10.1	0.0873	0.436	2
06135	Lead	7439-92-1	6.58	0.0115	0.225	2
06138	Molybdenum	7439-98-7	0.214	0.0562	0.112	2
06139	Nickel	7440-02-0	14.3	0.112	0.449	2
06141	Selenium	7782-49-2	0.192 J	0.0652	0.449	2
06142	Silver	7440-22-4	0.0160 U	0.0160	0.112	2
06145	Thallium	7440-28-0	0.267	0.0337	0.112	2
06148	Vanadium	7440-62-2	44.8	0.0247	0.112	2
06149	Zinc	7440-66-6	44.2	0.629	3.37	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.0 J	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.47 J	0.23	1.2	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.71	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 11:53	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 20:41	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 12:00	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:30	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:34	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:48	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473895
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8705 SDG#: DE287-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 23:01	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:02	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:48	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:20	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:36	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 20:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:34	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401A	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	76	U 76	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	76	U 76	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	1.9	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	1.9	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	1.9	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	1.9	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	1.9	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	1.9	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	1.9	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	1.9	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	18,700	6.66	22.0	1
07914	Boron	7440-42-8	13.1	0.397	5.51	1
01650	Calcium	7440-70-2	92,400	5.51	44.1	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	30,500	5.75	44.1	2
01656	Lithium	7439-93-2	30.0	0.68	2.2	1
01657	Magnesium	7439-95-4	6,500	0.485	11.0	1
06958	Manganese	7439-96-5	246	0.0397	0.551	1
10145	Phosphorus	7723-14-0	462	0.385	11.0	1
01662	Potassium	7440-09-7	3,350	12.4	55.1	1
01667	Sodium	7440-23-5	123	6.55	110	1
07968	Strontium	7440-24-6	122	0.0275	0.551	1
06969	Tin	7440-31-5	2.93 J	0.352	11.0	1
06970	Titanium	7440-32-6	624	0.0782	1.10	1
10146	Zirconium	7440-67-7	5.54	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0969 J	0.0807	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.53	0.0873	0.436	2
06126	Barium	7440-39-3	94.0	0.116	0.436	2
06127	Beryllium	7440-41-7	0.844	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.336	0.0480	0.109	2
06131	Chromium	7440-47-3	40.5	0.131	0.436	2
06132	Cobalt	7440-48-4	15.6	0.0218	0.109	2
06133	Copper	7440-50-8	13.1	0.0890	0.445	2
06135	Lead	7439-92-1	10.7	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.352	0.0545	0.109	2
06139	Nickel	7440-02-0	23.4	0.109	0.436	2
06141	Selenium	7782-49-2	0.217 J	0.0633	0.436	2
06142	Silver	7440-22-4	0.0176 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.409	0.0327	0.109	2
06148	Vanadium	7440-62-2	65.1	0.0240	0.109	2
06149	Zinc	7440-66-6	67.1	0.611	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0106 J	0.0077	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.3	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.43 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.33	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 12:17	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 21:15	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 03:45	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113215708005	11/26/2011 12:11	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113215708005	11/26/2011 12:11	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113215708005	11/26/2011 11:34	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113215708005	11/21/2011 00:38	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113211026003D	11/29/2011 15:51	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473896
LLI Group # 1277028
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/14/2011 17:08

E8706 SDG#: DE287-06*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06133	Copper	SW-846 6020	2	113341026001A	12/02/2011 23:03	David K Beck	2
06135	Lead	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113211026003C	11/29/2011 15:51	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113211026003B	12/02/2011 07:04	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113211026003A	11/29/2011 15:51	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113215711003	11/19/2011 11:21	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113215708005	11/18/2011 08:30	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113211026003	11/18/2011 08:43	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	2	113341026001	12/01/2011 11:35	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113215711003	11/18/2011 09:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11321373202A	11/19/2011 07:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11321373201A	11/18/2011 20:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 17:47	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11321373202A	11/17/2011 17:30	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11321373201A	11/17/2011 17:30	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11326SLE026	Sample number(s): 6473891-6473896								
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	65		49-98		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Nitrobenzene	17	U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	90		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170		170.	500	ug/kg	101		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026 Sample number(s): 6473891-6473896										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	105		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	95		72-119		
Batch number: 113230004A Sample number(s): 6473891-6473896										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 113211026003A Sample number(s): 6473891-6473896										
Antimony	0.0733	U	0.0733	0.198	mg/kg	62		40-227		
Arsenic	0.0792	U	0.0792	0.396	mg/kg	95		83-111		
Beryllium	0.0158	U	0.0158	0.0990	mg/kg	95		84-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Cadmium	0.0436 U	0.0436	0.0990	mg/kg	96		83-111		
Chromium	0.119 U	0.119	0.396	mg/kg	103		77-123		
Cobalt	0.0198 U	0.0198	0.0990	mg/kg	96		85-114		
Lead	0.0101 U	0.0101	0.198	mg/kg	97		84-112		
Nickel	0.0990 U	0.0990	0.396	mg/kg	96		81-110		
Silver	0.0141 U	0.0141	0.0990	mg/kg	97		83-112		
Thallium	0.0297 U	0.0297	0.0990	mg/kg	99		82-112		
Vanadium	0.0218 U	0.0218	0.0990	mg/kg	98		76-110		
Zinc	0.985 J	0.554	2.97	mg/kg	93		82-110		
Batch number: 113211026003B	Sample number(s): 6473891-6473896								
Selenium	0.0574 U	0.0574	0.396	mg/kg	97		79-110		
Batch number: 113211026003C	Sample number(s): 6473891-6473896								
Molybdenum	0.0495 U	0.0495	0.0990	mg/kg	94		80-110		
Batch number: 113211026003D	Sample number(s): 6473891-6473896								
Barium	0.105 U	0.105	0.396	mg/kg	93		83-110		
Batch number: 113215708005	Sample number(s): 6473891-6473896								
Aluminum	8.93 J	5.82	19.2	mg/kg	76		40-127		
Boron	0.644 J	0.346	4.81	mg/kg	91		83-110		
Calcium	9.39 J	2.40	19.2	mg/kg	91		81-110		
Iron	3.43 J	2.51	19.2	mg/kg	81		47-129		
Lithium	0.60 U	0.60	1.9	mg/kg	102		80-120		
Magnesium	0.949 J	0.423	9.62	mg/kg	82		63-116		
Manganese	0.0365 J	0.0346	0.481	mg/kg	95		85-116		
Phosphorus	1.86 J	0.337	9.62	mg/kg	102		80-120		
Potassium	10.9 U	10.9	48.1	mg/kg	93		71-110		
Sodium	5.72 U	5.72	96.2	mg/kg	93		76-110		
Strontium	0.0596 J	0.0240	0.481	mg/kg	92		84-110		
Tin	1.53 J	0.308	9.62	mg/kg	90		86-120		
Titanium	0.0740 J	0.0683	0.962	mg/kg	84		80-120		
Zirconium	0.442 U	0.442	4.81	mg/kg	106		80-120		
Batch number: 113215711003	Sample number(s): 6473891-6473896								
Mercury	0.0067 U	0.0067	0.0956	mg/kg	89		83-119		
Batch number: 113341026001A	Sample number(s): 6473891-6473896								
Copper	0.0777 U	0.0777	0.388	mg/kg	100		81-110		
Batch number: 11321373201A	Sample number(s): 6473891-6473896								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	100		85-115		
Batch number: 11321373202A	Sample number(s): 6473891-6473896								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	94		90-110		
Batch number: 11332243201A	Sample number(s): 6473891-6473896								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11332039401A	Sample number(s): 6473891-6473895								
17a pH by 9045C					100		95-105		
Batch number: 11332039401B	Sample number(s): 6473896								
17a pH by 9045C					100		95-105		
Batch number: 11325162402B	Sample number(s): 6473891-6473896								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11326SLE026 Sample number(s): 6473891-6473896 UNSPK: 6473891									
Aniline	55	67	18-116	19	30				
Benizidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				
Batch number: 11326SLG026 Sample number(s): 6473891-6473896 UNSPK: 6473891									
Acenaphthene	94	91	63-105	3	30				
Acenaphthylene	97	88	67-114	9	30				
Anthracene	98	93	73-115	4	30				
Benzo(a)anthracene	96	94	59-128	2	30				
Benzo(a)pyrene	95	93	58-142	2	30				
Benzo(b)fluoranthene	102	101	54-163	0	30				
Benzo(g,h,i)perylene	82	79	33-141	3	30				
Benzo(k)fluoranthene	92	90	57-153	2	30				
Butylbenzylphthalate	105	103	57-173	2	30				
Di-n-butylphthalate	110	107	65-148	2	30				
Chrysene	95	93	67-123	2	30				
Dibenz(a,h)anthracene	88	86	22-133	2	30				
Diethylphthalate	108	105	70-136	3	30				
Dimethylphthalate	105	107	74-118	2	30				
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30				
Fluoranthene	105	102	51-149	3	30				
Fluorene	99	95	66-122	4	30				
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30				
1-Methylnaphthalene	84	80	72-123	4	30				
2-Methylnaphthalene	80	77	64-103	3	30				
Naphthalene	86	86	61-102	1	30				
N-Nitrosodimethylamine	34*	34*	48-113	2	30				
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				
Batch number: 113230004A Sample number(s): 6473891-6473896 UNSPK: P470165									
PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				
Batch number: 113211026003A Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Antimony	16*	13*	75-125	9	20	0.168 J	0.108 J	44* (1)	20
Arsenic	119	150*	75-125	10	20	4.59	4.39	5	20
Beryllium	88	108	75-125	14	20	0.494	0.492	0 (1)	20
Cadmium	111	114	75-125	5	20	0.200	0.145	32* (1)	20
Chromium	112	141*	75-125	7	20	32.2	31.6	2	20
Cobalt	106	116	75-125	10	20	7.60	6.23	20	20
Lead	118	134*	75-125	6	20	5.96	5.42	9	20
Nickel	125	140*	75-125	8	20	11.4	11.2	2	20
Silver	107	106	75-125	2	20	0.0356 J	0.0244 J	38* (1)	20
Thallium	111	103	75-125	3	20	0.192	0.170	12 (1)	20
Vanadium	142 (2)	183 (2)	75-125	6	20	54.5	54.1	1	20
Zinc	110 (2)	169 (2)	75-125	11	20	44.2	41.9	5	20
Batch number: 113211026003B Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Selenium	92	105	75-125	15	20	0.134 J	0.174 J	26* (1)	20
Batch number: 113211026003C Sample number(s): 6473891-6473896 UNSPK: P470165 BKG: P470165									
Molybdenum	102	105	75-125	6	20	0.461	0.438	5 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113211026003D Barium	Sample number(s): 6473891-6473896 62 (2)	141 (2)	75-125	9	20	UNSPK: P470165 82.0	BKG: P470165 63.9	25*	20
Batch number: 113215708005 Aluminum	Sample number(s): 6473891-6473896 1462 (2)	1339 (2)	75-125	1	20	UNSPK: P470165 16,800	BKG: P470165 17,300	3	20
Boron	90	91	84-115	1	20	10.2	10.3	0 (1)	20
Calcium	215 (2)	238 (2)	75-125	2	20	3,910	4,000	2	20
Iron	135 (2)	269 (2)	75-125	1	20	23,200	23,500	1	20
Lithium	98	97	82-114	2	20	21.8	21.5	1	20
Magnesium	36 (2)	53 (2)	75-125	1	20	5,420	5,190	4	20
Manganese	148 (2)	118 (2)	75-125	4	20	309	329	6	20
Phosphorus	44 (2)	75 (2)	75-125	5	20	575	544	5	20
Potassium	103	126*	75-125	6	20	2,640	2,500	5	20
Sodium	97	95	75-125	1	20	80.0 J	82.5 J	3 (1)	20
Strontium	98	98	75-115	0	20	22.3	24.4	9	20
Tin	85	85	80-110	0	20	2.74 J	2.78 J	2 (1)	20
Titanium	374 (2)	331 (2)	75-125	3	20	931	974	5	20
Zirconium	94	92	81-110	2	20	8.25	10.1	20 (1)	20
Batch number: 113215711003 Mercury	Sample number(s): 6473891-6473896 97	102	65-135	5	20	UNSPK: 6473891 0.0085 J	BKG: 6473891 0.0082 J	4 (1)	20
Batch number: 113341026001A Copper	Sample number(s): 6473891-6473896 106	110	75-125	2	20	UNSPK: P470168 10.5	BKG: P470168 10.9	4	20
Batch number: 11321373201A 7a Perchlorate EPA 314.0	Sample number(s): 6473891-6473896 94		80-120			UNSPK: 6473891 9.0 U	BKG: 6473891 9.0 U	0 (1)	15
Batch number: 11321373202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6473891-6473896 73*		80-120			UNSPK: 6473891 4.4	BKG: 6473891 4.3	3 (1)	20
Batch number: 11332243201A 3a Cr VI by EPA 7199	Sample number(s): 6473891-6473896 99		75-125			UNSPK: P475869 1.3	BKG: P475869 0.43 J	100* (1)	20
Batch number: 11332039401A 17a pH by 9045C	Sample number(s): 6473891-6473895 17a pH by 9045C					BKG: 6473895 8.71	8.72	0	3
Batch number: 11332039401B 17a pH by 9045C	Sample number(s): 6473896 17a pH by 9045C					BKG: P477491 8.72	8.72	0	3
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473891-6473896 Moisture Content by 160.3					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:08 PM

Group Number: 1277028

Surrogate Quality Control

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6473891	72	75	73	69	69	65
6473892	70	72	63	66	67	63
6473893	90	93	72	82	83	82
6473894	92	93	79	80	82	81
6473895	95	96	74	81	86	84
6473896	97	99	87	85	89	84
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59
MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6473891	96	91	85
6473892	101	77	92
6473893	101	90	90
6473894	97	88	93
6473895	88	81	84
6473896	96	88	89
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89
Limits:	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082

Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6473891	136	146*
6473892	116	128*
6473893	103	109
6473894	116	118
6473895	105	112
6473896	106	117
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112
Limits:	53-139	45-120

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

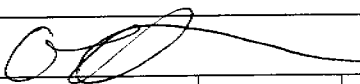
(2) The unspiked result was more than four times the spike added.

acct #13013

Cup #1277028

Sample # 6473891-96

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary								Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrailin under EPA Method 8270C.						*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 8850 (10%)		
Samplers Signatures: 																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-SS Sleeve			X	X							
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-SS Sleeve			X	X							
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)										Laboratory:		
		11/16/2011 / 1630		 LLI 11/17/11 0900										Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No.(s)												
				8767 9857 4961												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns $>25\%$
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is $<CRDL$, but $\geq IDL$
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 01, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/17/2011

Group Number: 1277029

SDG: DX155

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

Client Sample DescriptionSL-007-SA8S-SB-4.0-5.0 Soil
SL-005-SA8S-SB-3.5-4.5 Soil
SL-009-SA8S-SB-4.0-5.0 Soil
SL-009-SA8S-SB-7.0-8.0 Soil
SL-024-SA8S-SB-4.0-5.0 Soil
SL-024-SA8S-SB-7.0-8.0 SoilLancaster Labs (LLI) #6473897
6473898
6473899
6473900
6473901
6473902

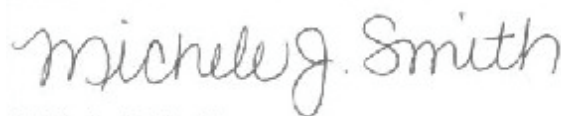
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
ELECTRONIC Data Package Group
COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	13.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0606 U	0.0606	1.12	1
11031	12378-PeCDD	40321-76-4	0.0425 U	0.0425	5.62	1
11031	123478-HxCDD	39227-28-6	0.0298 JBQ	0.0210	5.62	1
11031	123678-HxCDD	57653-85-7	0.0331 JBQ	0.0223	5.62	1
11031	123789-HxCDD	19408-74-3	0.0478 JBQ	0.0234	5.62	1
11031	1234678-HpCDD	35822-46-9	0.348 JB	0.0239	5.62	1
11031	OCDD	3268-87-9	0.665 JB	0.0227	11.2	1
11031	2378-TCDF	51207-31-9	0.0401 U	0.0401	1.12	1
11031	12378-PeCDF	57117-41-6	0.0193 U	0.0193	5.62	1
11031	23478-PeCDF	57117-31-4	0.0590 JBQ	0.0178	5.62	1
11031	123478-HxCDF	70648-26-9	0.0394 JBQ	0.0167	5.62	1
11031	123678-HxCDF	57117-44-9	0.0425 JBQ	0.0143	5.62	1
11031	123789-HxCDF	72918-21-9	0.0361 JBQ	0.0184	5.62	1
11031	234678-HxCDF	60851-34-5	0.0204 JBQ	0.0127	5.62	1
11031	1234678-HpCDF	67562-39-4	0.0733 JBQ	0.0111	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0488 JBQ	0.0171	5.62	1
11031	OCDF	39001-02-0	0.0860 JB	0.0378	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	92	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	59	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	88	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	73	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.

Submitted: 11/17/2011 09:00

14420 Albemarle Point Place

Reported: 12/01/2011 13:15

Suite 210

Chantilly VA 20151

X5507 SDG#: DX155-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-007-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-007-SA8S-SB

LLI Sample # SW 6473897
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 09:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5507 SDG#: DX155-07

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 20:53	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0502 J	0.0448	1.11	1
11031	12378-PeCDD	40321-76-4	0.0336 U	0.0336	5.53	1
11031	123478-HxCDD	39227-28-6	0.0214 U	0.0214	5.53	1
11031	123678-HxCDD	57653-85-7	0.0238 JBQ	0.0228	5.53	1
11031	123789-HxCDD	19408-74-3	0.0450 JBQ	0.0212	5.53	1
11031	1234678-HpCDD	35822-46-9	0.256 JBQ	0.0245	5.53	1
11031	OCDD	3268-87-9	0.479 JB	0.0201	11.1	1
11031	2378-TCDF	51207-31-9	0.0309 U	0.0309	1.11	1
11031	12378-PeCDF	57117-41-6	0.112 JB	0.0187	5.53	1
11031	23478-PeCDF	57117-31-4	0.124 JBQ	0.0181	5.53	1
11031	123478-HxCDF	70648-26-9	0.0612 JBQ	0.0167	5.53	1
11031	123678-HxCDF	57117-44-9	0.0489 JBQ	0.0136	5.53	1
11031	123789-HxCDF	72918-21-9	0.0553 JB	0.0159	5.53	1
11031	234678-HxCDF	60851-34-5	0.0651 JB	0.0128	5.53	1
11031	1234678-HpCDF	67562-39-4	0.106 JB	0.00932	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0196 JB	0.0159	5.53	1
11031	OCDF	39001-02-0	0.150 JB	0.0341	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	97	32 - 141
13C12-123678-HxCDD	101	28 - 130
13C12-123789-HxCDD	99	28 - 130
13C12-1234678-HpCDD	110	23 - 140
13C12-OCDD	121	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	83	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	112	28 - 143
13C12-1234789-HpCDF	84	26 - 138
13C12-OCDF	89	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-005-SA8S-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-005-SA8S-SB

LLI Sample # SW 6473898
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2011 13:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5508 SDG#: DX155-08

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/29/2011 21:50	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.4	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0695 JQ	0.0392	1.09	1
11031	12378-PeCDD	40321-76-4	0.0806 JQ	0.0320	5.45	1
11031	123478-HxCDD	39227-28-6	0.0457 JB	0.0263	5.45	1
11031	123678-HxCDD	57653-85-7	0.0370 JBQ	0.0251	5.45	1
11031	123789-HxCDD	19408-74-3	0.0817 JB	0.0249	5.45	1
11031	1234678-HpCDD	35822-46-9	0.256 JB	0.0223	5.45	1
11031	OCDD	3268-87-9	0.706 JBQ	0.0204	10.9	1
11031	2378-TCDF	51207-31-9	0.0375 JQ	0.0305	1.09	1
11031	12378-PeCDF	57117-41-6	0.0721 JBQ	0.0161	5.45	1
11031	23478-PeCDF	57117-31-4	0.0796 JB	0.0155	5.45	1
11031	123478-HxCDF	70648-26-9	0.0610 JB	0.0183	5.45	1
11031	123678-HxCDF	57117-44-9	0.0734 JB	0.0166	5.45	1
11031	123789-HxCDF	72918-21-9	0.108 JB	0.0174	5.45	1
11031	234678-HxCDF	60851-34-5	0.0889 JBQ	0.0160	5.45	1
11031	1234678-HpCDF	67562-39-4	0.102 JB	0.0112	5.45	1
11031	1234789-HpCDF	55673-89-7	0.0695 JBQ	0.0188	5.45	1
11031	OCDF	39001-02-0	0.128 JB	0.0328	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	100	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-009-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473899
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 11:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5509 SDG#: DX155-09

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 12:26	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	8.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0447 U	0.0447	1.07	1
11031	12378-PeCDD	40321-76-4	0.0334 U	0.0334	5.35	1
11031	123478-HxCDD	39227-28-6	0.0311 JB	0.0202	5.35	1
11031	123678-HxCDD	57653-85-7	0.0305 JB	0.0210	5.35	1
11031	123789-HxCDD	19408-74-3	0.0524 JB	0.0202	5.35	1
11031	1234678-HpCDD	35822-46-9	0.298 JB	0.0247	5.35	1
11031	OCDD	3268-87-9	0.646 JB	0.0195	10.7	1
11031	2378-TCDF	51207-31-9	0.0317 U	0.0317	1.07	1
11031	12378-PeCDF	57117-41-6	0.0378 JBQ	0.0175	5.35	1
11031	23478-PeCDF	57117-31-4	0.0493 JB	0.0158	5.35	1
11031	123478-HxCDF	70648-26-9	0.0320 JBQ	0.0159	5.35	1
11031	123678-HxCDF	57117-44-9	0.0297 JBQ	0.0141	5.35	1
11031	123789-HxCDF	72918-21-9	0.0332 JBQ	0.0160	5.35	1
11031	234678-HxCDF	60851-34-5	0.0535 JBQ	0.0136	5.35	1
11031	1234678-HpCDF	67562-39-4	0.0934 JB	0.0111	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0277 JB	0.0160	5.35	1
11031	OCDF	39001-02-0	0.104 JB	0.0362	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	95	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	83	28 - 136
13C12-123789-HxCDF	83	29 - 147
13C12-1234678-HpCDF	93	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-009-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-009-SA8S-SB

LLI Sample # SW 6473900
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 12:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5510 SDG#: DX155-10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 13:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	11.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0430 U	0.0430	1.10	1
11031	12378-PeCDD	40321-76-4	0.0315 U	0.0315	5.52	1
11031	123478-HxCDD	39227-28-6	0.0239 JBQ	0.0231	5.52	1
11031	123678-HxCDD	57653-85-7	0.0333 JB	0.0226	5.52	1
11031	123789-HxCDD	19408-74-3	0.0230 U	0.0230	5.52	1
11031	1234678-HpCDD	35822-46-9	0.296 JBQ	0.0198	5.52	1
11031	OCDD	3268-87-9	1.01 JB	0.0211	11.0	1
11031	2378-TCDF	51207-31-9	0.0300 U	0.0300	1.10	1
11031	12378-PeCDF	57117-41-6	0.0207 JB	0.0152	5.52	1
11031	23478-PeCDF	57117-31-4	0.0530 JB	0.0147	5.52	1
11031	123478-HxCDF	70648-26-9	0.0503 JBQ	0.0128	5.52	1
11031	123678-HxCDF	57117-44-9	0.0331 JBQ	0.0108	5.52	1
11031	123789-HxCDF	72918-21-9	0.0303 JBQ	0.0140	5.52	1
11031	234678-HxCDF	60851-34-5	0.0263 JB	0.0115	5.52	1
11031	1234678-HpCDF	67562-39-4	0.113 JBQ	0.00955	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0211 JBQ	0.0155	5.52	1
11031	OCDF	39001-02-0	0.174 JBQ	0.0308	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	87	23 - 140
13C12-OCDD	97	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	95	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	78	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473901
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 09:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5511 SDG#: DX155-11

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 14:19	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0388 U	0.0388	1.12	1
11031	12378-PeCDD	40321-76-4	0.0320 U	0.0320	5.62	1
11031	123478-HxCDD	39227-28-6	0.0325 JB	0.0221	5.62	1
11031	123678-HxCDD	57653-85-7	0.0358 JBQ	0.0229	5.62	1
11031	123789-HxCDD	19408-74-3	0.0409 JBQ	0.0237	5.62	1
11031	1234678-HpCDD	35822-46-9	0.307 JBQ	0.0258	5.62	1
11031	OCDD	3268-87-9	0.810 JB	0.0197	11.2	1
11031	2378-TCDF	51207-31-9	0.0302 U	0.0302	1.12	1
11031	12378-PeCDF	57117-41-6	0.0144 U	0.0144	5.62	1
11031	23478-PeCDF	57117-31-4	0.0338 JBQ	0.0144	5.62	1
11031	123478-HxCDF	70648-26-9	0.0260 JBQ	0.0143	5.62	1
11031	123678-HxCDF	57117-44-9	0.0119 U	0.0119	5.62	1
11031	123789-HxCDF	72918-21-9	0.0164 JBQ	0.0147	5.62	1
11031	234678-HxCDF	60851-34-5	0.0333 JB	0.0124	5.62	1
11031	1234678-HpCDF	67562-39-4	0.0804 JBQ	0.00745	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0496 JBQ	0.0124	5.62	1
11031	OCDF	39001-02-0	0.196 JB	0.0315	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	83	28 - 130
13C12-1234678-HpCDD	93	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	102	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	82	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-024-SA8S-SB-7.0-8.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-024-SA8S-SB

LLI Sample # SW 6473902
LLI Group # 1277029
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 10:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/17/2011 09:00

Reported: 12/01/2011 13:15

X5512 SDG#: DX155-12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 15:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11325162402B	11/21/2011 19:17	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/11 at 01:15 PM

Group Number: 1277029

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473897-6473902				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6473897-6473902								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11325162402B Moisture Content by 160.3	Sample number(s): 6473897-6473902					BKG: P470165 6.6	6.9	4	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/01/11 at 01:15 PM

Group Number: 1277029

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6473897	61	74	59	69	76	67
6473898	83	88	66	83	87	83
6473899	71	80	64	75	74	81
6473900	69	82	70	76	83	83
6473901	71	77	67	76	73	73
6473902	71	79	67	78	76	76
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70

Limits:	25-164	21-178	26-152	26-123	28-136	29-147

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6473897	88	70	73	77	83	88
6473898	112	84	89	95	97	101
6473899	100	74	78	82	80	86
6473900	93	81	82	81	83	84
6473901	95	73	78	79	79	84
6473902	102	75	82	83	81	86
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85

Limits:	28-143	26-138	17-157	25-181	32-141	28-130

	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6473897	82	87	92	61	76
6473898	99	110	121	78	98
6473899	83	93	98	71	86
6473900	82	87	95	70	83
6473901	80	87	97	71	83
6473902	83	93	102	70	87
Blank	97	105	114	86	102
OPR	82	90	96	67	82

Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

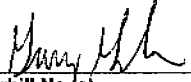
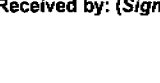
(2) The unspiked result was more than four times the spike added.

acct #13013

Cup #1277029

Sample # 6473897-903

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING				Primary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.						*Metals EPA 6010/6020/87471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-SS Sleeve			X	X							
SL-007-SA8S-SB-4.0-5.0	11.15.11	0915	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-SS Sleeve			X	X							
SL-005-SA8S-SB-3.5-4.5	11.15.11	1345	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-4.0-5.0	11.16.11	1135	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-SS Sleeve			X	X							
SL-009-SA8S-SB-7.0-8.0	11.16.11	1205	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-4.0-5.0	11.16.11	0930	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-SS Sleeve			X	X							
SL-024-SA8S-SB-7.0-8.0	11.16.11	1015	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Laboratory: Lancaster Laboratories, Inc.										
		11/16/2011 / 1630		 LLI 11/17/11 0900												
Received by: (Signature)		Date/Time		Airbill No. (s)												
				8767 9857 4961												

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/18/2011
Group Number: 1277303
SDG: DE288
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-010-SA8S-SB-4.0-5.0 Soil
SL-010-SA8S-SB-8.5-9.5 Soil
SL-008-SA8S-SB-2.0-3.0 Soil
SL-011-SA8S-SB-4.0-5.0 Soil
EB-SA8S-SB-111711 Water

Lancaster Labs (LLI)

6475866
6475867
6475868
6475869
6475870

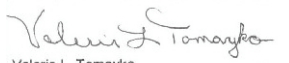
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
1 COPY TO CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	570	1
04688	Benzyl alcohol	100-51-6	190	U 190	570	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	570	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	570	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9	1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	26,100	6.75	22.3	1
07914	Boron	7440-42-8	5.00 J	0.402	5.58	1
01650	Calcium	7440-70-2	66,300	5.58	44.6	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	43,200	5.83	44.6	2
01656	Lithium	7439-93-2	34.1	0.69	2.2	1
01657	Magnesium	7439-95-4	9,100	0.491	11.2	1
06958	Manganese	7439-96-5	303	0.0402	0.558	1
10145	Phosphorus	7723-14-0	374	0.391	11.2	1
01662	Potassium	7440-09-7	3,920	12.6	55.8	1
01667	Sodium	7440-23-5	136	6.64	112	1
07968	Strontium	7440-24-6	93.1	0.0279	0.558	1
06969	Tin	7440-31-5	3.58 J	0.357	11.2	1
06970	Titanium	7440-32-6	1,080	0.0792	1.12	1
10146	Zirconium	7440-67-7	7.71	0.513	5.58	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.196 J	0.0826	0.223	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	11.4	0.0893	0.446	2
06126	Barium	7440-39-3	101	0.118	0.446	2
06127	Beryllium	7440-41-7	0.968	0.0179	0.112	2
06128	Cadmium	7440-43-9	0.196	0.0491	0.112	2
06131	Chromium	7440-47-3	30.3	0.134	0.446	2
06132	Cobalt	7440-48-4	12.8	0.0223	0.112	2
06133	Copper	7440-50-8	36.9	0.0893	0.446	2
06135	Lead	7439-92-1	16.7	0.0114	0.223	2
06138	Molybdenum	7439-98-7	0.595	0.0558	0.112	2
06139	Nickel	7440-02-0	25.0	0.112	0.446	2
06141	Selenium	7782-49-2	0.508	0.0647	0.446	2
06142	Silver	7440-22-4	0.0281 J	0.0158	0.112	2
06145	Thallium	7440-28-0	0.448	0.0335	0.112	2
06148	Vanadium	7440-62-2	63.3	0.0246	0.112	2
06149	Zinc	7440-66-6	83.1	0.625	3.35	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0079 U	0.0079	0.113	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.5	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.3 U	10.3	34.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.73 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.65	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 12:42	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 21:49	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:18	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:11	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/26/2011 10:11	Eric L Eby	2
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:07	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:20	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:00	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475866
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0104 SDG#: DE288-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:00	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:12	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:00	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:31	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:01	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 18:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 18:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	580	1
04688	Benidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	580	1
04688	Benzyl alcohol	100-51-6	190	U 190	580	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	77	U 77	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	120	U 120	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	580	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,200	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	77	U 77	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	580	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	77	U 77	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	580	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	580	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38 U	38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38 U	38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.76 U	0.76	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.76 U	0.76	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.76 U	0.76	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.76 U	0.76	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.76 U	0.76	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.76 U	0.76	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.76 U	0.76	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluoranthene	206-44-0	0.76 U	0.76	1.9	1
10138	Fluorene	86-73-7	0.76 U	0.76	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.76 U	0.76	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.76 U	0.76	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.76 U	0.76	1.9	1
10138	Naphthalene	91-20-3	0.76 U	0.76	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.76 U	0.76	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
10138	Phenanthrene	85-01-8	0.76 U	0.76	1.9	1
10138	Pyrene	129-00-0	0.76 U	0.76	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.8	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.8	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.8	1
10225	PCB-1016	12674-11-2	0.38 U	0.38	2.0	1
10225	PCB-1221	11104-28-2	0.38 U	0.38	2.0	1
10225	PCB-1232	11141-16-5	0.38 U	0.38	2.0	1
10225	PCB-1242	53469-21-9	0.38 U	0.38	2.0	1
10225	PCB-1248	12672-29-6	0.38 U	0.38	2.0	1
10225	PCB-1254	11097-69-1	0.38 U	0.38	2.0	1
10225	PCB-1260	11096-82-5	0.45 U	0.45	2.0	1
10225	PCB-1262	37324-23-5	0.38 U	0.38	2.0	1
10225	PCB-1268	11100-14-4	0.38 U	0.38	2.0	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,400	6.70	22.2	1
07914	Boron	7440-42-8	5.58	0.399	5.54	1
01650	Calcium	7440-70-2	70,600	5.54	44.3	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,100	2.89	22.2	1
01656	Lithium	7439-93-2	28.1	0.69	2.2	1
01657	Magnesium	7439-95-4	7,610	0.487	11.1	1
06958	Manganese	7439-96-5	275	0.0399	0.554	1
10145	Phosphorus	7723-14-0	582	0.388	11.1	1
01662	Potassium	7440-09-7	3,190	12.5	55.4	1
01667	Sodium	7440-23-5	148	6.59	111	1
07968	Strontium	7440-24-6	101	0.0277	0.554	1
06969	Tin	7440-31-5	3.72 J	0.354	11.1	1
06970	Titanium	7440-32-6	649	0.0787	1.11	1
10146	Zirconium	7440-67-7	8.05	0.510	5.54	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.182 J	0.0820	0.222	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	16.0	0.0886	0.443	2
06126	Barium	7440-39-3	111	0.117	0.443	2
06127	Beryllium	7440-41-7	0.964	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.256	0.0487	0.111	2
06131	Chromium	7440-47-3	29.8	0.133	0.443	2
06132	Cobalt	7440-48-4	13.5	0.0222	0.111	2
06133	Copper	7440-50-8	37.9	0.0886	0.443	2
06135	Lead	7439-92-1	20.7	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.568	0.0554	0.111	2
06139	Nickel	7440-02-0	25.2	0.111	0.443	2
06141	Selenium	7782-49-2	0.234 J	0.0643	0.443	2
06142	Silver	7440-22-4	0.0345 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.389	0.0332	0.111	2
06148	Vanadium	7440-62-2	58.7	0.0244	0.111	2
06149	Zinc	7440-66-6	114	0.620	3.32	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 U	0.0080	0.114	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.91	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.4 U	10.4	34.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.23	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.11	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	13.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:06	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 22:24	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:36	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:25	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:21	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:24	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:33	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475867
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0108 SDG#: DE288-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:33	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:30	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:33	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:32	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:44	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 19:22	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 18:14	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	540	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600	1
04688	Benzoic acid	65-85-0	180	U 180	540	1
04688	Benzyl alcohol	100-51-6	180	U 180	540	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180	1
04688	4-Chloroaniline	106-47-8	72	U 72	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180	1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540	1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	36	U 36	180	1
04688	4-Methylphenol	106-44-5	36	U 36	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	36	U 36	180	1
04688	4-Nitroaniline	100-01-6	72	U 72	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	540	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	540	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	36 U	36	180	1
04688	2,4,6-Trichlorophenol	88-06-2	36 U	36	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.71 U	0.71	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.71 U	0.71	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.71 U	0.71	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.71 U	0.71	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.71 U	0.71	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.71 U	0.71	1.8	1
10138	Butylbenzylphthalate	85-68-7	10 J	6.4	19	1
10138	Di-n-butylphthalate	84-74-2	6.4 U	6.4	19	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.71 U	0.71	1.8	1
10138	Diethylphthalate	84-66-2	6.4 U	6.4	19	1
10138	Dimethylphthalate	131-11-3	6.4 U	6.4	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	16 J	6.4	19	1
10138	Fluoranthene	206-44-0	0.71 U	0.71	1.8	1
10138	Fluorene	86-73-7	0.71 U	0.71	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.71 U	0.71	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.71 U	0.71	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.71 U	0.71	1.8	1
10138	Naphthalene	91-20-3	0.71 U	0.71	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.71 U	0.71	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.4 U	6.4	19	1
10138	Phenanthrene	85-01-8	0.71 U	0.71	1.8	1
10138	Pyrene	129-00-0	0.71 U	0.71	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.6	1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8	1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8	1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8	1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8	1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8	1
10225	PCB-1254	11097-69-1	0.36 U	0.36	1.8	1
10225	PCB-1260	11096-82-5	0.42 U	0.42	1.8	1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8	1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,100	6.50	21.5	1
07914	Boron	7440-42-8	7.42	0.387	5.38	1
01650	Calcium	7440-70-2	172,000	13.4	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	19,000	2.81	21.5	1
01656	Lithium	7439-93-2	9.8	0.67	2.2	1
01657	Magnesium	7439-95-4	4,330	0.473	10.8	1
06958	Manganese	7439-96-5	325	0.0387	0.538	1
10145	Phosphorus	7723-14-0	328	0.376	10.8	1
01662	Potassium	7440-09-7	2,160	12.1	53.8	1
01667	Sodium	7440-23-5	128	6.40	108	1
07968	Strontium	7440-24-6	212	0.0269	0.538	1
06969	Tin	7440-31-5	2.68 J	0.344	10.8	1
06970	Titanium	7440-32-6	478	0.0763	1.08	1
10146	Zirconium	7440-67-7	5.48	0.495	5.38	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.120 J	0.0788	0.213	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	5.82	0.0852	0.426	2
06126	Barium	7440-39-3	60.0	0.113	0.426	2
06127	Beryllium	7440-41-7	0.490	0.0170	0.106	2
06128	Cadmium	7440-43-9	0.285	0.0468	0.106	2
06131	Chromium	7440-47-3	28.8	0.128	0.426	2
06132	Cobalt	7440-48-4	5.53	0.0213	0.106	2
06133	Copper	7440-50-8	10.1	0.0852	0.426	2
06135	Lead	7439-92-1	5.98	0.0109	0.213	2
06138	Molybdenum	7439-98-7	0.282	0.0532	0.106	2
06139	Nickel	7440-02-0	11.7	0.106	0.426	2
06141	Selenium	7782-49-2	0.103 J	0.0617	0.426	2
06142	Silver	7440-22-4	0.0151 U	0.0151	0.106	2
06145	Thallium	7440-28-0	0.156	0.0319	0.106	2
06148	Vanadium	7440-62-2	36.5	0.0234	0.106	2
06149	Zinc	7440-66-6	34.7	0.596	3.19	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.86 U	0.86	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.8 U	9.8	32.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.47	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	7.9	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:30	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 22:57	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 05:55	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:32	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:29	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:28	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:36	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475868
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0082 SDG#: DE288-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:36	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:31	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:36	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:34	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 11:58	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 20:10	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/02/2011 13:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.36 U	0.36	1.8	1
10138	Anthracene	120-12-7	0.36 U	0.36	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.36 U	0.36	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.0 J	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	12,000	6.66	22.0	1
07914	Boron	7440-42-8	6.87	0.396	5.51	1
01650	Calcium	7440-70-2	129,000	13.8	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	15,100	2.87	22.0	1
01656	Lithium	7439-93-2	11.4	0.68	2.2	1
01657	Magnesium	7439-95-4	4,450	0.485	11.0	1
06958	Manganese	7439-96-5	302	0.0396	0.551	1
10145	Phosphorus	7723-14-0	321	0.385	11.0	1
01662	Potassium	7440-09-7	2,090	12.4	55.1	1
01667	Sodium	7440-23-5	115	6.55	110	1
07968	Strontium	7440-24-6	160	0.0275	0.551	1
06969	Tin	7440-31-5	2.92 J	0.352	11.0	1
06970	Titanium	7440-32-6	569	0.0782	1.10	1
10146	Zirconium	7440-67-7	5.16 J	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.105 J	0.0799	0.216	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.01	0.0864	0.432	2
06126	Barium	7440-39-3	72.8	0.114	0.432	2
06127	Beryllium	7440-41-7	0.630	0.0173	0.108	2
06128	Cadmium	7440-43-9	0.222	0.0475	0.108	2
06131	Chromium	7440-47-3	38.9	0.130	0.432	2
06132	Cobalt	7440-48-4	7.99	0.0216	0.108	2
06133	Copper	7440-50-8	10.9	0.0864	0.432	2
06135	Lead	7439-92-1	6.52	0.0110	0.216	2
06138	Molybdenum	7439-98-7	0.283	0.0540	0.108	2
06139	Nickel	7440-02-0	15.7	0.108	0.432	2
06141	Selenium	7782-49-2	0.0717 J	0.0626	0.432	2
06142	Silver	7440-22-4	0.0153 U	0.0153	0.108	2
06145	Thallium	7440-28-0	0.248	0.0324	0.108	2
06148	Vanadium	7440-62-2	53.9	0.0238	0.108	2
06149	Zinc	7440-66-6	45.9	0.605	3.24	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0078 U	0.0078	0.110	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.4	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.60	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.1	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 13:55	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/28/2011 23:32	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113230004A	11/30/2011 06:13	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113230004A	11/21/2011 00:00	Denise L Trimby	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:40	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:36	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:32	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:39	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475869
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

S0114 SDG#: DE288-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:39	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:33	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:39	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:37	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11322373202A	11/21/2011 12:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	2	11322373201A	12/01/2011 20:34	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 18:48	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11322373202A	11/18/2011 17:20	Joseph E McKenzie	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11322373201A	11/18/2011 17:20	Joseph E McKenzie	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	6	1
04678	Benzidine	92-87-5	22 U	22	66	1
04678	Benzoic acid	65-85-0	7 U	7	17	1
04678	Benzyl alcohol	100-51-6	6 U	6	17	1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	6	1
04678	Carbazole	86-74-8	1 U	1	6	1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	6	1
04678	4-Chloroaniline	106-47-8	1 U	1	6	1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	6	1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	6	1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	6	1
04678	2-Chloronaphthalene	91-58-7	2 U	2	6	1
04678	2-Chlorophenol	95-57-8	1 U	1	6	1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	6	1
04678	Dibenzofuran	132-64-9	1 U	1	6	1
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	6	1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	6	1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	6	1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	6	1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	6	1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11	1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11	1
04678	4,6-Dinitro-2-methylphenol	534-52-1	6 U	6	17	1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	33	1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	6	1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	6	1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	6	1
04678	Hexachlorobenzene	118-74-1	1 U	1	6	1
04678	Hexachlorobutadiene	87-68-3	1 U	1	6	1
04678	Hexachlorocyclopentadiene	77-47-4	6 U	6	17	1
04678	Hexachloroethane	67-72-1	1 U	1	6	1
04678	Isophorone	78-59-1	1 U	1	6	1
04678	2-Methylphenol	95-48-7	1 U	1	6	1
04678	4-Methylphenol	106-44-5	2 U	2	6	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04678	2-Nitroaniline	88-74-4	1 U	1	6	1
04678	3-Nitroaniline	99-09-2	1 U	1	6	1
04678	4-Nitroaniline	100-01-6	1 U	1	6	1
04678	Nitrobenzene	98-95-3	1 U	1	6	1
04678	2-Nitrophenol	88-75-5	1 U	1	6	1
04678	4-Nitrophenol	100-02-7	11 U	11	33	1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	6	1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	6	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04678	Pentachlorophenol	87-86-5	3 U	3	17	1
04678	Phenol	108-95-2	1 U	1	6	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l		ug/l	ug/l	
04678	1,2,4-Trichlorobenzene	120-82-1	1	U	1	6	1
04678	2,4,5-Trichlorophenol	95-95-4	1	U	1	6	1
04678	2,4,6-Trichlorophenol	88-06-2	1	U	1	6	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l		ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.011	U	0.011	0.053	1
10137	Acenaphthylene	208-96-8	0.011	U	0.011	0.053	1
10137	Anthracene	120-12-7	0.011	U	0.011	0.053	1
10137	Benzo(a)anthracene	56-55-3	0.011	U	0.011	0.053	1
10137	Benzo(a)pyrene	50-32-8	0.011	U	0.011	0.053	1
10137	Benzo(b)fluoranthene	205-99-2	0.011	U	0.011	0.053	1
10137	Benzo(g,h,i)perylene	191-24-2	0.011	U	0.011	0.053	1
10137	Benzo(k)fluoranthene	207-08-9	0.011	U	0.011	0.053	1
10137	Butylbenzylphthalate	85-68-7	0.053	U	0.053	1.1	1
10137	Di-n-butylphthalate	84-74-2	0.31	J	0.053	1.1	1
10137	Chrysene	218-01-9	0.011	U	0.011	0.053	1
10137	Dibenz(a,h)anthracene	53-70-3	0.011	U	0.011	0.053	1
10137	Diethylphthalate	84-66-2	0.066	J	0.053	1.1	1
10137	Dimethylphthalate	131-11-3	0.053	U	0.053	1.1	1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.12	J	0.053	1.1	1
10137	Fluoranthene	206-44-0	0.011	U	0.011	0.053	1
10137	Fluorene	86-73-7	0.011	U	0.011	0.053	1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.011	U	0.011	0.053	1
10137	1-Methylnaphthalene	90-12-0	0.011	U	0.011	0.053	1
10137	2-Methylnaphthalene	91-57-6	0.012	J	0.011	0.053	1
10137	Naphthalene	91-20-3	0.066		0.032	0.053	1
10137	N-Nitrosodimethylamine	62-75-9	0.011	U	0.011	0.053	1
10137	Di-n-octylphthalate	117-84-0	0.084	J	0.053	1.1	1
10137	Phenanthrene	85-01-8	0.032	U	0.032	0.053	1
10137	Pyrene	129-00-0	0.011	U	0.011	0.053	1

Bis(2-ethylhexyl)phthalate was detected in the method blank at a concentration of .083 ug/l. The blank value was not subtracted from the analytical result.

Reporting limits were raised due to limited sample volume.

Pesticides/PCBs	SW-846 8082	ug/l		ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.10	U	0.10	0.51
10227	Aroclor 5442	12642-23-8	0.10	U	0.10	0.51
10227	Aroclor 5460	11126-42-4	0.10	U	0.10	0.51
10227	PCB-1016	12674-11-2	0.10	U	0.10	0.51
10227	PCB-1221	11104-28-2	0.10	U	0.10	0.51
10227	PCB-1232	11141-16-5	0.20	U	0.20	0.51
10227	PCB-1242	53469-21-9	0.10	U	0.10	0.51
10227	PCB-1248	12672-29-6	0.10	U	0.10	0.51
10227	PCB-1254	11097-69-1	0.10	U	0.10	0.51
10227	PCB-1260	11096-82-5	0.15	U	0.15	0.51
10227	PCB-1262	37324-23-5	0.20	U	0.20	0.51
10227	PCB-1268	11100-14-4	0.16	U	0.16	0.51

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801 U	0.0801	0.200	1
08014	Boron	7440-42-8	0.0042 J	0.0022	0.0500	1
01750	Calcium	7440-70-2	0.0705 U	0.0705	0.200	1
01754	Iron	7439-89-6	0.0141 U	0.0141	0.200	1
01756	Lithium	7439-93-2	0.0076 U	0.0076	0.0200	1
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100	1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050	1
10143	Phosphorus	7723-14-0	0.0047 U	0.0047	0.100	1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500	1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00	1
08068	Strontium	7440-24-6	0.00023 J	0.00022	0.0050	1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200	1
07070	Titanium	7440-32-6	0.00046 U	0.00046	0.0100	1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500	1
	SW-846 6020		mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010	1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020	1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020	1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050	1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050	1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020	1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050	1
06033	Copper	7440-50-8	0.00038 U	0.00038	0.0020	1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010	1
06038	Molybdenum	7439-98-7	0.00025 U	0.00025	0.00050	1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020	1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020	1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050	1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050	1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050	1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150	1
	SW-846 7470A		mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020	1
Wet Chemistry						
	EPA 300.0		mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10	1
	EPA 314.0		ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0	1
	SW-846 7199		ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0	1
	SW-846 9040B		Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.6	0.010	0.010	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04678	5b Semivolatiles by EPA 8270C	SW-846 8270C	1	11327WAA026	12/10/2011 08:14	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11323WU026	11/30/2011 04:27	Mark A Clark	1
00813	BNA Water Extraction	SW-846 3510C	1	11327WAA026	11/23/2011 18:00	Nicholas W Shroyer	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11323WU026	11/20/2011 10:15	Elaine F Stoltzfus	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113250021A	11/30/2011 08:05	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113250021A	11/21/2011 21:20	Karen L Beyer	1
01743	Aluminum	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
08014	Boron	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01750	Calcium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01754	Iron	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01756	Lithium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01757	Magnesium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
10143	Phosphorus	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01762	Potassium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
01767	Sodium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
08068	Strontium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07069	Tin	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
07070	Titanium	SW-846 6010B	1	113261848002	11/28/2011 13:40	Joanne M Gates	1
10144	Zirconium	SW-846 6010B	1	113261848002	11/26/2011 09:10	Eric L Eby	1
06024	Antimony	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113266050003D	11/29/2011 17:35	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113266050003C	11/29/2011 17:35	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113266050003B	11/29/2011 17:35	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113266050003A	11/29/2011 17:35	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113265713007	11/23/2011 08:35	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113261848002	11/23/2011 09:52	Denise K Connors	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475870
LLI Group # 1277303
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/14/2011 17:12

EB117 SDG#: DE288-05EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113266050003	11/23/2011 09:48	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113265713007	11/22/2011 18:41	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11333196602B	11/30/2011 02:34	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11322281101A	11/18/2011 12:16	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11322281401B	11/18/2011 11:45	Elyse P Brunstetter	1
00200	17b pH by 9040B	SW-846 9040B	1	11322020003A	11/18/2011 22:25	Luz M Groff	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11323WAU026 Sample number(s): 6475870									
Acenaphthene	0.010 U	0.010	0.050	ug/l	102	106	74-109	3	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	106	110	70-110	3	30
Anthracene	0.010 U	0.010	0.050	ug/l	99	82	66-111	19	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	105	108	72-114	3	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	102	105	60-127	4	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	110	113	58-151	3	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	64	70	57-131	9	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	100	104	59-130	4	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	104	108	40-138	3	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	115	101	56-148	13	30
Chrysene	0.010 U	0.010	0.050	ug/l	100	103	76-116	3	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	80	85	55-134	7	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	74	66	37-148	11	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	104	107	40-119	3	30
Bis(2-Ethylhexyl)phthalate	0.083 J	0.050	1.0	ug/l	111	113	57-154	2	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	109	95	75-116	14	30
Fluorene	0.010 U	0.010	0.050	ug/l	102	103	75-114	1	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	76	81	53-158	6	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	94	99	71-117	5	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	98	75-115	5	30
Naphthalene	0.030 U	0.030	0.050	ug/l	99	104	72-109	4	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	47	50	36-89	6	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	107	111	57-145	4	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	100	85	76-111	16	30
Pyrene	0.010 U	0.010	0.050	ug/l	99	103	69-118	4	30
Batch number: 11326SLE026 Sample number(s): 6475866-6475869									
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	65		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	90		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170 U	170.	500	ug/kg	101		51-117		
Phenol	17 U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026	Sample number(s): 6475866-6475869								
Acenaphthene	0.67 U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	105		71-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	95		72-119		

Batch number: 11327WAA026

Sample number(s): 6475870

Aniline	1	U	1.	5	ug/l	69	68	38-116	3	30
Benzidine	20	U	20.	60	ug/l	50	51	34-117	1	30
Benzoic acid	6	U	6.	15	ug/l	44	46	10-69	6	30
Benzyl alcohol	5	U	5.	15	ug/l	85	83	66-97	2	30
4-Bromophenyl-phenylether	1	U	1.	5	ug/l	94	100	75-115	7	30
Carbazole	1	U	1.	5	ug/l	97	103	75-120	7	30
4-Chloro-3-methylphenol	1	U	1.	5	ug/l	97	96	70-123	1	30
4-Chloroaniline	1	U	1.	5	ug/l	57	53	24-128	6	30
bis(2-Chloroethoxy)methane	1	U	1.	5	ug/l	90	93	74-124	3	30
bis(2-Chloroethyl)ether	1	U	1.	5	ug/l	95	92	77-108	4	30
bis(2-Chloroisopropyl)ether	1	U	1.	5	ug/l	91	91	62-127	0	30
2-Chloronaphthalene	2	U	2.	5	ug/l	99	100	54-132	2	30
2-Chlorophenol	1	U	1.	5	ug/l	99	95	71-114	4	30
4-Chlorophenyl-phenylether	2	U	2.	5	ug/l	96	96	77-114	1	30
Dibenzofuran	1	U	1.	5	ug/l	92	94	75-117	2	30
1,2-Dichlorobenzene	1	U	1.	5	ug/l	83	83	55-118	0	30
1,3-Dichlorobenzene	1	U	1.	5	ug/l	82	83	61-111	1	30
1,4-Dichlorobenzene	1	U	1.	5	ug/l	81	82	53-119	2	30
3,3'-Dichlorobenzidine	2	U	2.	5	ug/l	52	54	37-117	4	30
2,4-Dichlorophenol	1	U	1.	5	ug/l	98	97	77-117	1	30
2,4-Dimethylphenol	3	U	3.	10	ug/l	96	97	72-110	1	30
3,5-Dimethylphenol	3	U	3.	10	ug/l	103	103	70-130	0	30
4,6-Dinitro-2-methylphenol	5	U	5.	15	ug/l	97	109	65-126	11	30
2,4-Dinitrophenol	10	U	10.	30	ug/l	85	91	52-131	8	30
2,4-Dinitrotoluene	1	U	1.	5	ug/l	97	100	76-119	3	30
2,6-Dinitrotoluene	1	U	1.	5	ug/l	101	99	76-118	1	30
1,2-Diphenylhydrazine	1	U	1.	5	ug/l	97	103	68-127	6	30
Hexachlorobenzene	1	U	1.	5	ug/l	94	101	75-119	7	30
Hexachlorobutadiene	1	U	1.	5	ug/l	82	86	57-124	5	30
Hexachlorocyclopentadiene	5	U	5.	15	ug/l	76	82	36-118	8	30
Hexachloroethane	1	U	1.	5	ug/l	79	80	52-113	1	30
Isophorone	1	U	1.	5	ug/l	94	96	74-117	3	30
2-Methylphenol	1	U	1.	5	ug/l	93	93	58-110	1	30
4-Methylphenol	2	U	2.	5	ug/l	83	81	49-108	3	30
2-Nitroaniline	1	U	1.	5	ug/l	98	99	75-120	2	30
3-Nitroaniline	1	U	1.	5	ug/l	90	92	74-113	2	30
4-Nitroaniline	1	U	1.	5	ug/l	61	59	59-100	3	30
Nitrobenzene	1	U	1.	5	ug/l	92	95	75-109	3	30
2-Nitrophenol	1	U	1.	5	ug/l	94	97	76-118	4	30
4-Nitrophenol	10	U	10.	30	ug/l	51	51	16-78	1	30
N-Nitroso-di-n-propylamine	1	U	1.	5	ug/l	89	86	69-110	3	30
N-Nitrosodiphenylamine	2	U	2.	5	ug/l	95	103	67-136	8	30
Pentachlorophenol	3	U	3.	15	ug/l	93	101	53-110	8	30
Phenol	1	U	1.	5	ug/l	55	52	21-67	6	30
1,2,4-Trichlorobenzene	1	U	1.	5	ug/l	85	88	71-112	4	30
2,4,5-Trichlorophenol	1	U	1.	5	ug/l	101	100	79-107	1	30
2,4,6-Trichlorophenol	1	U	1.	5	ug/l	100	101	76-120	1	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 113230004A									
Sample number(s): 6475866-6475869									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	244*	74	36-106	107*	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	78		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	98		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113250021A									
Sample number(s): 6475870									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	74	68	35-84	8	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	90	92	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	102	100	56-135	2	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113241026002A									
Sample number(s): 6475866-6475869									
Antimony	0.0718 U	0.0718	0.194	mg/kg	70		40-227		
Arsenic	0.0777 U	0.0777	0.388	mg/kg	96		83-111		
Beryllium	0.0155 U	0.0155	0.0971	mg/kg	97		84-112		
Cadmium	0.0427 U	0.0427	0.0971	mg/kg	99		83-111		
Chromium	0.117 U	0.117	0.388	mg/kg	104		77-123		
Cobalt	0.0194 U	0.0194	0.0971	mg/kg	99		85-114		
Copper	0.0777 U	0.0777	0.388	mg/kg	99		81-110		
Lead	0.0099 U	0.0099	0.194	mg/kg	99		84-112		
Nickel	0.0971 U	0.0971	0.388	mg/kg	102		81-110		
Silver	0.0138 U	0.0138	0.0971	mg/kg	101		83-112		
Thallium	0.0291 U	0.0291	0.0971	mg/kg	99		82-112		
Vanadium	0.0214 U	0.0214	0.0971	mg/kg	99		76-110		
Zinc	0.689 J	0.544	2.91	mg/kg	99		82-110		
Batch number: 113241026002B									
Sample number(s): 6475866-6475869									
Selenium	0.0563 U	0.0563	0.388	mg/kg	99		79-110		
Batch number: 113241026002C									
Sample number(s): 6475866-6475869									
Molybdenum	0.0485 U	0.0485	0.0971	mg/kg	96		80-110		
Batch number: 113241026002D									
Sample number(s): 6475866-6475869									
Barium	0.103 U	0.103	0.388	mg/kg	98		83-110		
Batch number: 113245708004									
Sample number(s): 6475866-6475869									
Aluminum	5.93 U	5.93	19.6	mg/kg	79		40-127		
Boron	0.353 U	0.353	4.90	mg/kg	97		83-110		
Calcium	6.46 J	2.45	19.6	mg/kg	100		81-110		
Iron	3.25 J	2.56	19.6	mg/kg	84		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Magnesium	2.95 J	0.431	9.80	mg/kg	85		63-116		
Manganese	0.0588 J	0.0353	0.490	mg/kg	97		85-116		
Phosphorus	1.31 J	0.343	9.80	mg/kg	102		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	96		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	96		76-110		
Strontium	0.0245 U	0.0245	0.490	mg/kg	98		84-110		
Tin	1.21 J	0.314	9.80	mg/kg	98		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	82		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	103		80-120		
Batch number: 113245711003	Sample number(s): 6475866-6475869								
Mercury	0.0068 U	0.0068	0.0972	mg/kg	92		83-119		
Batch number: 113261848002	Sample number(s): 6475870								
Aluminum	0.0801 U	0.0801	0.200	mg/l	105	101	90-112	4	20
Boron	0.0042 J	0.0022	0.0500	mg/l	95	95	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	103	102	90-110	1	20
Iron	0.0173 J	0.0141	0.200	mg/l	102	101	90-112	0	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	103	101	90-110	2	20
Magnesium	0.0327 J	0.0067	0.100	mg/l	101	100	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	100	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	99	99	90-110	1	20
Potassium	0.0912 J	0.0874	0.500	mg/l	102	101	85-115	1	20
Sodium	0.0647 U	0.0647	1.00	mg/l	101	100	87-114	1	20
Strontium	0.00029 J	0.00022	0.0050	mg/l	99	100	90-110	1	20
Tin	0.0043 U	0.0043	0.0200	mg/l	99	99	90-110	1	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	100	100	90-113	0	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	102	90-110	1	20
Batch number: 113265713007	Sample number(s): 6475870								
Mercury	0.000034 J	0.00002	0.00020	mg/l	89	90	80-120	1	20
Batch number: 113266050003A	Sample number(s): 6475870								
Antimony	0.00042 U	0.00042	0.0010	mg/l	113*	104	87-110	9	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	103	110	86-111	6	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	109	107	90-113	1	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	112	106	90-114	6	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	113	109	90-118	3	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	106	105	87-113	1	20
Copper	0.00038 U	0.00038	0.0020	mg/l	108	109	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	106	90-115	2	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	111	107	90-113	4	20
Silver	0.000098 U	0.00009	0.00050	mg/l	106	109	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	101	108	89-116	7	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	107	89-116	3	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	104	109	90-116	5	20
Batch number: 113266050003B	Sample number(s): 6475870								
Selenium	0.00027 U	0.00027	0.0020	mg/l	111	111	85-114	1	20
Batch number: 113266050003C	Sample number(s): 6475870								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	105	107	89-115	3	20
Batch number: 113266050003D	Sample number(s): 6475870								
Barium	0.00069 U	0.00069	0.0020	mg/l	106	103	88-113	2	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Reported: 12/14/11 at 05:12 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11322281101A 7b Perchlorate EPA 314.0	Sample number(s): 6475870 0.70 U 0.70	2.0	ug/l	94	90	85-115	5	20	
Batch number: 11322281401B 3b Cr VI by EPA 7199	Sample number(s): 6475870 5.0 U 5.0	10.0	ug/l	103	101	90-110	2	20	
Batch number: 11322373201A 7a Perchlorate EPA 314.0	Sample number(s): 6475866-6475869 9.0 U 9.0	30.0	ug/kg	115		85-115			
Batch number: 11322373202A 11a Anions by 300.0 - Fluoride	Sample number(s): 6475866-6475869 0.80 U 0.80	1.0	mg/kg	92		90-110			
Batch number: 11332243201A 3a Cr VI by EPA 7199	Sample number(s): 6475866-6475869 0.20 U 0.20	1.0	mg/kg	103		80-120			
Batch number: 11333196602B 11b Anions by 300.0 - Fluoride	Sample number(s): 6475870 0.080 U 0.080	0.10	mg/l	99	100	90-110	1	20	
Batch number: 11322020003A 17b pH by 9040B	Sample number(s): 6475870			100	100	90-110	0	3	
Batch number: 11332039401B 17a pH by 9045C	Sample number(s): 6475866-6475869			100		95-105			
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6475866-6475869			99		80-120			

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11326SLE026	Sample number(s): 6475866-6475869 UNSPK: P473891								
Aniline	55	67	18-116	19	30				
Benizidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				

Batch number: 11326SLG026

Sample number(s): 6475866-6475869 UNSPK: P473891

Acenaphthene	94	91	63-105	3	30
Acenaphthylene	97	88	67-114	9	30
Anthracene	98	93	73-115	4	30
Benzo(a)anthracene	96	94	59-128	2	30
Benzo(a)pyrene	95	93	58-142	2	30
Benzo(b)fluoranthene	102	101	54-163	0	30
Benzo(g,h,i)perylene	82	79	33-141	3	30
Benzo(k)fluoranthene	92	90	57-153	2	30
Butylbenzylphthalate	105	103	57-173	2	30
Di-n-butylphthalate	110	107	65-148	2	30
Chrysene	95	93	67-123	2	30
Dibenz(a,h)anthracene	88	86	22-133	2	30
Diethylphthalate	108	105	70-136	3	30
Dimethylphthalate	105	107	74-118	2	30
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30
Fluoranthene	105	102	51-149	3	30
Fluorene	99	95	66-122	4	30
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30
1-Methylnaphthalene	84	80	72-123	4	30
2-Methylnaphthalene	80	77	64-103	3	30
Naphthalene	86	86	61-102	1	30
N-Nitrosodimethylamine	34*	34*	48-113	2	30

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				
Batch number: 113230004A	Sample number(s): 6475866-6475869 UNSPK: P470165								
PCB-1016	86	91	29-146	5	50				
PCB-1260	99	109	39-149	9	50				
Batch number: 113241026002A	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Antimony	17*	24*	75-125	21*	20	0.170 J	0.251	38* (1)	20
Arsenic	120 (2)	315 (2)	75-125	27*	20	9.95	19.1	63*	20
Beryllium	99	141*	75-125	18	20	0.842	1.20	35*	20
Cadmium	113	133*	75-125	13	20	0.170	0.166	3 (1)	20
Chromium	133*	213*	75-125	18	20	26.3	47.5	57*	20
Cobalt	116	148*	75-125	20	20	11.1	22.0	66*	20
Copper	123	235*	75-125	22*	20	32.1	66.3	70*	20
Lead	132 (2)	322 (2)	75-125	26*	20	14.6	27.7	62*	20
Nickel	133*	227*	75-125	23*	20	21.7	44.2	68*	20
Silver	107	124	75-125	14	20	0.0245 J	0.0472 J	64* (1)	20
Thallium	114	149*	75-125	15	20	0.390	0.646	50* (1)	20
Vanadium	162 (2)	300 (2)	75-125	17	20	55.1	97.3	55*	20
Zinc	146 (2)	375 (2)	75-125	23*	20	72.3	144	66*	20
Batch number: 113241026002B	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Selenium	81	80	75-125	1	20	0.442	0.300 J	38* (1)	20
Batch number: 113241026002C	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Molybdenum	98	117	75-125	16	20	0.518	0.434	18 (1)	20
Batch number: 113241026002D	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866								
Barium	146 (2)	388 (2)	75-125	21*	20	87.5	171	65*	20
Batch number: 113245708004	Sample number(s): 6475866-6475869 UNSPK: P467994 BKG: P467994								
Aluminum	1838 (2)	1801 (2)	75-125	0	20	17,200	16,900	2	20
Boron	97	97	84-115	3	20	4.24 J	4.57 J	8 (1)	20
Calcium	166 (2)	180 (2)	75-125	2	20	4,310	4,290	0	20
Iron	1639 (2)	569 (2)	75-125	4	20	26,400	24,000	9	20
Lithium	99	98	82-114	2	20	31.1	29.0	7	20
Magnesium	376 (2)	385 (2)	75-125	1	20	7,400	6,950	6	20
Manganese	-1 (2)	137 (2)	75-125	21*	20	289	278	4	20
Phosphorus	115 (2)	111 (2)	75-125	0	20	514	491	5	20
Potassium	158*	155*	75-125	0	20	2,690	2,670	1	20
Sodium	98	99	75-125	3	20	151	198	27* (1)	20
Strontium	99	99	75-115	3	20	16.4	18.6	12	20
Tin	85	86	80-110	4	20	20.4	2.70 J	153* (1)	20
Titanium	430 (2)	424 (2)	75-125	1	20	967	999	3	20
Zirconium	99	99	81-110	3	20	6.90	7.27	5 (1)	20
Batch number: 113245711003	Sample number(s): 6475866-6475869 UNSPK: P477490 BKG: P477490								
Mercury	97	99	65-135	4	20	0.0066 U	0.0070 U	0 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11322373201A 7a Perchlorate EPA 314.0	105		80-120	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866		9.0 U	9.0 U	0 (1)	15
Batch number: 11322373202A 11a Anions by 300.0 - Fluoride	83		80-120	Sample number(s): 6475866-6475869 UNSPK: 6475866 BKG: 6475866		1.3	0.80 U	200* (1)	20
Batch number: 11332243201A 3a Cr VI by EPA 7199	99		75-125	Sample number(s): 6475866-6475869 UNSPK: 6475869 BKG: 6475869		1.3	0.43 J	100* (1)	20
Batch number: 11332039401B 17a pH by 9045C				Sample number(s): 6475866-6475869 BKG: P477491		8.72	8.72	0	3
Batch number: 11335162401B Moisture Content by 160.3				Sample number(s): 6475866-6475869 BKG: P463909		7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11323WAU026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475870	104	98	111
Blank	106	97	102
LCS	111	99	98
LCSD	116	100	102
Limits:	40-130	45-130	45-135

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475866	88	91	90	81	82	81
6475867	93	96	89	83	88	83
6475868	91	94	86	83	84	84
6475869	85	88	78	78	82	80
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59
MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:12 PM

Group Number: 1277303

Surrogate Quality Control

6475866	95	87	93
6475867	125	76	94
6475868	100	89	94
6475869	75	79	89
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89

Limits: 40-130 45-130 45-135

Analysis Name: 5b Semivolatiles by EPA 8270C
Batch number: 11327WAA026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6475870	68	44	98	87	90	85
Blank	60	39	91	85	88	89
LCS	75	50	97	87	92	85
LCSD	74	49	101	91	94	88

Limits: 20-130 20-120 30-130 40-130 45-130 45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113230004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6475866	102	114
6475867	99	109
6475868	100	110
6475869	101	115
Blank	95	123*
LCS	95	116
LCSD	106	126*
MS	97	104
MSD	98	112

Limits: 53-139 45-120

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113250021A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6475870	112	120
Blank	106	105
LCS	99	111
LCSD	100	104

Limits: 30-150 45-120

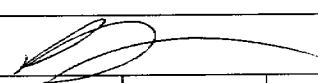
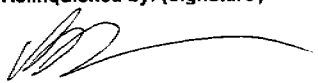
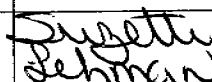
*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

13013 1277303 6475866-70

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary									
NOTES: *Primary Analyses as Indicated on sample labels **Secondary Analyses as Indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																Other Instructions and Notes
Samplers Signatures: 						*Metals EPA 8010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-SS Sleeve			X	X							
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-SS Sleeve			X	X							
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-SS Sleeve			X	X							
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-SS Sleeve			X	X							
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X			
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)													
	11/17/2011 / 1630															
Received by: (Signature)	Date/Time		Airbill No.(s)										Laboratory: Lancaster Laboratories, Inc.			
			8767 9857 4960										11/18/11 0945 0925			

 AMO
 11/18/11

13013

1277303

6475866-70

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 15 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SAB) & Subarea 7 (SAT) also report Tetralin under EPA Method 8270C.							*Metals EPA 80106/2005/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCP's EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7189	*pH EPA 9045C/6040B	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	**TPH-EPI EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**1,4-NDMA EPA 1625C	**Emergicals EPA 9330A	**Cyanide EPA 9012B	**Triphenyls EPA 8015B	**Glycols EPA 8015B	**Alcohols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	5-1 liter ambers			X	X	X																	
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X														
EB-SA8S-SB-111711	11.17.11	1400	WATER	HNO3	1-500 mL poly	X																					
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:	
		11/17/2011 / 1630																								Lancaster Laboratories, Inc.	
Received by: (Signature)		Date/Time		Airbill No.(s)																						 11/18/11 0945 0925 ANO 11/18/11	
				8767 9857 4960																							

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/18/2011
Group Number: 1277304
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-010-SA8S-SB-4.0-5.0 Soil
SL-010-SA8S-SB-8.5-9.5 Soil
SL-008-SA8S-SB-2.0-3.0 Soil
SL-011-SA8S-SB-4.0-5.0 Soil
EB-SA8S-SB-111711 Water

Lancaster Labs (LLI)

6475871
6475872
6475873
6475874
6475875

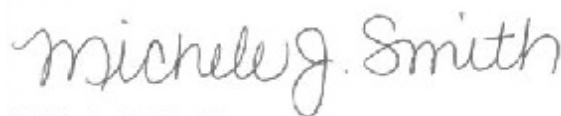
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	13.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0430 U	0.0430	1.13	1
11031	12378-PeCDD	40321-76-4	0.0375 JQ	0.0316	5.65	1
11031	123478-HxCDD	39227-28-6	0.0252 JBQ	0.0236	5.65	1
11031	123678-HxCDD	57653-85-7	0.0682 JB	0.0240	5.65	1
11031	123789-HxCDD	19408-74-3	0.0696 JB	0.0225	5.65	1
11031	1234678-HpCDD	35822-46-9	0.664 JBQ	0.0256	5.65	1
11031	OCDD	3268-87-9	3.28 JB	0.0244	11.3	1
11031	2378-TCDF	51207-31-9	0.0471 JQ	0.0374	1.13	1
11031	12378-PeCDF	57117-41-6	0.0336 JBQ	0.0184	5.65	1
11031	23478-PeCDF	57117-31-4	0.101 JB	0.0179	5.65	1
11031	123478-HxCDF	70648-26-9	0.0574 JBQ	0.0170	5.65	1
11031	123678-HxCDF	57117-44-9	0.0414 JBQ	0.0146	5.65	1
11031	123789-HxCDF	72918-21-9	0.0185 U	0.0185	5.65	1
11031	234678-HxCDF	60851-34-5	0.0483 JBQ	0.0151	5.65	1
11031	1234678-HpCDF	67562-39-4	0.158 JBQ	0.0115	5.65	1
11031	1234789-HpCDF	55673-89-7	0.0486 JBQ	0.0182	5.65	1
11031	OCDF	39001-02-0	0.292 JB	0.0307	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	101	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	97	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	83	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475871
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0104 SDG#: DX155-13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 16:12	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	13.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0412 U	0.0412	1.12	1
11031	12378-PeCDD	40321-76-4	0.0341 U	0.0341	5.60	1
11031	123478-HxCDD	39227-28-6	0.0233 JBQ	0.0226	5.60	1
11031	123678-HxCDD	57653-85-7	0.0225 U	0.0225	5.60	1
11031	123789-HxCDD	19408-74-3	0.0397 JB	0.0226	5.60	1
11031	1234678-HpCDD	35822-46-9	0.352 JB	0.0235	5.60	1
11031	OCDD	3268-87-9	1.20 JB	0.0184	11.2	1
11031	2378-TCDF	51207-31-9	0.0390 JQ	0.0332	1.12	1
11031	12378-PeCDF	57117-41-6	0.0157 U	0.0157	5.60	1
11031	23478-PeCDF	57117-31-4	0.0595 JBQ	0.0159	5.60	1
11031	123478-HxCDF	70648-26-9	0.0559 JB	0.0176	5.60	1
11031	123678-HxCDF	57117-44-9	0.0146 U	0.0146	5.60	1
11031	123789-HxCDF	72918-21-9	0.0443 JBQ	0.0160	5.60	1
11031	234678-HxCDF	60851-34-5	0.0427 JBQ	0.0123	5.60	1
11031	1234678-HpCDF	67562-39-4	0.0906 JBQ	0.0108	5.60	1
11031	1234789-HpCDF	55673-89-7	0.0242 JB	0.0162	5.60	1
11031	OCDF	39001-02-0	0.174 JB	0.0302	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	83	32 - 141
13C12-123678-HxCDD	86	28 - 130
13C12-123789-HxCDD	84	28 - 130
13C12-1234678-HpCDD	90	23 - 140
13C12-OCDD	99	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	90	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-010-SA8S-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-010-SA8S-SB

LLI Sample # SW 6475872
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2011 15:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0108 SDG#: DX155-14

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 17:09	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	7.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0387 U	0.0387	1.07	1
11031	12378-PeCDD	40321-76-4	0.0330 U	0.0330	5.36	1
11031	123478-HxCDD	39227-28-6	0.0225 U	0.0225	5.36	1
11031	123678-HxCDD	57653-85-7	0.0356 JBQ	0.0228	5.36	1
11031	123789-HxCDD	19408-74-3	0.0233 U	0.0233	5.36	1
11031	1234678-HpCDD	35822-46-9	0.306 JB	0.0215	5.36	1
11031	OCDD	3268-87-9	1.01 JB	0.0248	10.7	1
11031	2378-TCDF	51207-31-9	0.0305 U	0.0305	1.07	1
11031	12378-PeCDF	57117-41-6	0.0295 JB	0.0144	5.36	1
11031	23478-PeCDF	57117-31-4	0.0712 JBQ	0.0141	5.36	1
11031	123478-HxCDF	70648-26-9	0.0205 JBQ	0.0140	5.36	1
11031	123678-HxCDF	57117-44-9	0.0469 JBQ	0.0117	5.36	1
11031	123789-HxCDF	72918-21-9	0.0215 JBQ	0.0136	5.36	1
11031	234678-HxCDF	60851-34-5	0.0267 JBQ	0.0110	5.36	1
11031	1234678-HpCDF	67562-39-4	0.108 JBQ	0.0102	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0293 JB	0.0163	5.36	1
11031	OCDF	39001-02-0	0.0850 JB	0.0302	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	84	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	98	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	94	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	79	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/18/2011 09:25

Suite 210

Reported: 12/02/2011 09:08

Chantilly VA 20151

D0082 SDG#: DX155-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-008-SA8S-SB-2.0-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-008-SA8S-SB

LLI Sample # SW 6475873
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 09:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0082 SDG#: DX155-15

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 18:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0415 U	0.0415	1.11	1
11031	12378-PeCDD	40321-76-4	0.0325 U	0.0325	5.55	1
11031	123478-HxCDD	39227-28-6	0.0398 JB	0.0224	5.55	1
11031	123678-HxCDD	57653-85-7	0.0757 JB	0.0228	5.55	1
11031	123789-HxCDD	19408-74-3	0.0462 JBQ	0.0228	5.55	1
11031	1234678-HpCDD	35822-46-9	0.408 JB	0.0235	5.55	1
11031	OCDD	3268-87-9	1.60 JB	0.0268	11.1	1
11031	2378-TCDF	51207-31-9	0.0609 JQ	0.0362	1.11	1
11031	12378-PeCDF	57117-41-6	0.0854 JBQ	0.0172	5.55	1
11031	23478-PeCDF	57117-31-4	0.0337 JB	0.0167	5.55	1
11031	123478-HxCDF	70648-26-9	0.0367 JBQ	0.0167	5.55	1
11031	123678-HxCDF	57117-44-9	0.0348 JBQ	0.0138	5.55	1
11031	123789-HxCDF	72918-21-9	0.0171 U	0.0171	5.55	1
11031	234678-HxCDF	60851-34-5	0.0432 JBQ	0.0143	5.55	1
11031	1234678-HpCDF	67562-39-4	0.0614 JBQ	0.0102	5.55	1
11031	1234789-HpCDF	55673-89-7	0.0575 JBQ	0.0171	5.55	1
11031	OCDF	39001-02-0	0.178 JB	0.0327	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	85	23 - 140
13C12-OCDD	93	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	91	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	75	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-011-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-011-SA8S-SB

LLI Sample # SW 6475874
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 10:35

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

D0114 SDG#: DX155-16

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 19:02	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475875
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

DB117 SDG#: DX155-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.200 U	0.200	2.09	1
10915	12378-PeCDD	40321-76-4	0.347 JQ	0.248	10.5	1
10915	123478-HxCDD	39227-28-6	0.362 JBQ	0.188	10.5	1
10915	123678-HxCDD	57653-85-7	0.199 JBQ	0.186	10.5	1
10915	123789-HxCDD	19408-74-3	0.416 JBQ	0.178	10.5	1
10915	1234678-HpCDD	35822-46-9	2.67 JBQ	0.221	10.5	1
10915	OCDD	3268-87-9	6.54 JBQ	0.226	20.9	1
10915	2378-TCDF	51207-31-9	0.155 U	0.155	2.09	1
10915	12378-PeCDF	57117-41-6	0.181 JBQ	0.115	10.5	1
10915	23478-PeCDF	57117-31-4	0.432 JBQ	0.0966	10.5	1
10915	123478-HxCDF	70648-26-9	0.384 JBQ	0.147	10.5	1
10915	123678-HxCDF	57117-44-9	0.473 JBQ	0.150	10.5	1
10915	123789-HxCDF	72918-21-9	0.276 JQ	0.103	10.5	1
10915	234678-HxCDF	60851-34-5	0.655 JBQ	0.0926	10.5	1
10915	1234678-HpCDF	67562-39-4	2.66 JB	0.133	10.5	1
10915	1234789-HpCDF	55673-89-7	0.168 JBQ	0.123	10.5	1
10915	OCDF	39001-02-0	1.73 JBQ	0.337	20.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	66	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	46	26 - 152
13C12-123678-HxCDF	46	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	49	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	64	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 2

Sample Description: EB-SA8S-SB-111711 Water
SSFL Area IV Collocated Soil Sampling
EB-SA8S-SB

LLI Sample # WW 6475875
LLI Group # 1277304
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/18/2011 09:25

Reported: 12/02/2011 09:08

DB117 SDG#: DX155-17EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326001	11/24/2011 01:59	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11326001	11/22/2011 08:30	Deborah M Zimmerman	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6475871-6475874				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326001	Sample number(s): 6475875								
2378-TCDD	0.426 U	0.426	2.00	pg/l	112		67-158		
12378-PeCDD	0.358 U	0.358	10.0	pg/l	109		70-142		
123478-HxCDD	0.486 J	0.307	10.0	pg/l	101		70-164		
123678-HxCDD	0.713 J	0.312	10.0	pg/l	99		76-134		
123789-HxCDD	0.574 J	0.314	10.0	pg/l	104		64-162		
1234678-HpCDD	4.66 J	0.349	10.0	pg/l	101		70-140		
OCDD	7.85 J	0.379	20.0	pg/l	95		78-144		
2378-TCDF	0.234 U	0.234	2.00	pg/l	100		75-158		
12378-PeCDF	0.553 J	0.175	10.0	pg/l	107		80-134		
23478-PeCDF	0.487 J	0.150	10.0	pg/l	99		68-160		
123478-HxCDF	0.618 J	0.213	10.0	pg/l	100		72-134		
123678-HxCDF	0.222 J	0.200	10.0	pg/l	102		84-130		
123789-HxCDF	0.220 U	0.220	10.0	pg/l	102		78-130		
234678-HxCDF	0.306 J	0.190	10.0	pg/l	100		70-156		
1234678-HpCDF	1.94 J	0.159	10.0	pg/l	93		82-122		
1234789-HpCDF	0.617 J	0.191	10.0	pg/l	98		78-138		
OCDF	1.85 J	0.505	20.0	pg/l	99		63-170		

Batch number: 11326002	Sample number(s): 6475871-6475874								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11335162401B Moisture Content by 160.3									
Sample number(s): 6475871-6475874						BKG: P463909 7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11326001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6475875	68	75	46	46	71	76
Blank	50	56	48	48	51	54
OPR	60	71	65	67	67	79
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6475875	49	68	64	68	66	67
Blank	48	47	45	50	46	50
OPR	69	71	73	63	64	66
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6475875	66	66	64	78	74	
Blank	48	49	47	63	55	
OPR	65	68	74	69	71	
Limits:	28-130	23-140	17-157	24-169	24-185	

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6475871	73	80	69	80	77	75
6475872	71	77	54	69	78	68
6475873	67	74	60	73	73	72
6475874	66	70	61	72	71	69
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:08 AM

Group Number: 1277304

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6475871	97	75	83	81	83	84
6475872	90	70	75	82	83	86
6475873	94	72	79	77	81	84
6475874	91	70	75	74	79	79
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6475871	84	90	101	73	86	
6475872	84	90	99	70	87	
6475873	81	91	98	68	81	
6475874	78	85	93	65	76	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

13013 1277304 6475871-25

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary									
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetrafin under EPA Method 8270C.																	Other Instructions and Notes
Samplers Signatures:						*Metals EPA 601060208&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers												
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-SS Sleeve			X	X								
SL-010-SA8S-SB-4.0-5.0	11.16.11	1505	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-SS Sleeve			X	X								
SL-010-SA8S-SB-8.5-9.5	11.16.11	1540	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-SS Sleeve			X	X								
SL-008-SA8S-SB-2.0-3.0	11.17.11	0945	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-SS Sleeve			X	X								
SL-011-SA8S-SB-4.0-5.0	11.17.11	1035	SOIL	NONE	1-16 oz Jars	X	X			X	X	X	X				
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)														
	11/17/2011 / 1630																
Received by: (Signature)	Date/Time		Airbill No.(s)														
			8767 9857 4960														
			Laboratory: Lancaster Laboratories, Inc.														
			11/18/11 0945 0925 ANO 11/18/11														

13013 1277304 6475871-75

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					Primary										Secondary										Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels *Secondary Analyses as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 18 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report TetraIn under EPA Method 8270C.							*Metals EPA 80106/8270A/8271A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCTs EPA 8062	*Dioxin/Furan EPA 161.3B	*Perchlorate EPA 314.0	*Hex. Chrome EPA 7199	*pH EPA 9445C/9040B	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EPH EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*n-NDMA EPA 1825C	*Enargitox EPA 8330A	*Cyanide EPA 8012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B		*Dioxins EPA 8270
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																							
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	5-1 liter ambers			X	X	X																		
EB-SA8S-SB-111711	11.17.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X															
EB-SA8S-SB-111711	11.17.11	1400	WATER	HNO3	1-500 mL poly	X																						
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)																				Laboratory:						
	11/17/2011 / 1630																					Lancaster Laboratories, Inc.						
Received by: (Signature)	Date/Time	Airbill No.(s)																										
		8767 9857 4960																										

Suzette Lehman
11/18/11 0945

0925
AKO
11/18/11

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 14, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/19/2011
Group Number: 1277528
SDG: DE289
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-001-SA8S-SB-4.0-5.0 Soil
SL-012-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6477490
6477491

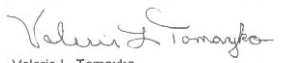
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,


Valerie L. Tomayko
Principal Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.49 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	16,100	6.63	21.9	1
07914	Boron	7440-42-8	9.10	0.395	5.48	1
01650	Calcium	7440-70-2	122,000	13.7	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	17,700	2.86	21.9	1
01656	Lithium	7439-93-2	17.5	0.68	2.2	1
01657	Magnesium	7439-95-4	5,600	0.483	11.0	1
06958	Manganese	7439-96-5	334	0.0395	0.548	1
10145	Phosphorus	7723-14-0	420	0.384	11.0	1
01662	Potassium	7440-09-7	3,220	12.4	54.8	1
01667	Sodium	7440-23-5	139	6.52	110	1
07968	Strontium	7440-24-6	230	0.0274	0.548	1
06969	Tin	7440-31-5	2.85 J	0.351	11.0	1
06970	Titanium	7440-32-6	871	0.0779	1.10	1
10146	Zirconium	7440-67-7	6.08	0.504	5.48	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0812 U	0.0812	0.219	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.88	0.0877	0.439	2
06126	Barium	7440-39-3	88.9	0.116	0.439	2
06127	Beryllium	7440-41-7	0.660	0.0175	0.110	2
06128	Cadmium	7440-43-9	0.394	0.0483	0.110	2
06131	Chromium	7440-47-3	35.3	0.132	0.439	2
06132	Cobalt	7440-48-4	8.59	0.0219	0.110	2
06133	Copper	7440-50-8	12.7	0.0877	0.439	2
06135	Lead	7439-92-1	7.63	0.0112	0.219	2
06138	Molybdenum	7439-98-7	0.193	0.0548	0.110	2
06139	Nickel	7440-02-0	15.2	0.110	0.439	2
06141	Selenium	7782-49-2	0.166 J	0.0636	0.439	2
06142	Silver	7440-22-4	0.0156 U	0.0156	0.110	2
06145	Thallium	7440-28-0	0.284	0.0329	0.110	2
06148	Vanadium	7440-62-2	59.9	0.0241	0.110	2
06149	Zinc	7440-66-6	56.5	0.614	3.29	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.90 U	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.35 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.77	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/10/2011 14:19	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/29/2011 00:06	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113270015A	11/30/2011 09:37	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113270015A	11/23/2011 19:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:47	Eric L Eby	5
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:43	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:42	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 5

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477490
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8901 SDG#: DE289-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:42	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:35	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:42	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:39	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11333621201A	11/29/2011 13:06	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11333621202A	12/02/2011 16:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11332243201A	12/01/2011 20:08	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11333621201A	11/29/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11333621202A	11/29/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	19	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	23	J 19	370	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74 U	0.74	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.74 U	0.74	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.74 U	0.74	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.74 U	0.74	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74 U	0.74	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.74 U	0.74	1.8	1
10138	Butylbenzylphthalate	85-68-7	23	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74 U	0.74	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.74 U	0.74	1.8	1
10138	Fluorene	86-73-7	0.74 U	0.74	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74 U	0.74	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.74 U	0.74	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.74 U	0.74	1.8	1
10138	Naphthalene	91-20-3	0.74 U	0.74	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.74 U	0.74	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.74 U	0.74	1.8	1
10138	Pyrene	129-00-0	0.74 U	0.74	1.8	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B	mg/kg	mg/kg	mg/kg		
01643	Aluminum	7429-90-5	17,000	6.59	21.8	1
07914	Boron	7440-42-8	7.11	0.392	5.45	1
01650	Calcium	7440-70-2	116,000	5.45	43.6	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	26,700	2.84	21.8	1
01656	Lithium	7439-93-2	18.4	0.68	2.2	1
01657	Magnesium	7439-95-4	5,770	0.479	10.9	1
06958	Manganese	7439-96-5	271	0.0392	0.545	1
10145	Phosphorus	7723-14-0	373	0.381	10.9	1
01662	Potassium	7440-09-7	2,800	12.3	54.5	1
01667	Sodium	7440-23-5	144	6.48	109	1
07968	Strontium	7440-24-6	197	0.0272	0.545	1
06969	Tin	7440-31-5	2.82 J	0.349	10.9	1
06970	Titanium	7440-32-6	711	0.0774	1.09	1
10146	Zirconium	7440-67-7	5.71	0.501	5.45	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.106 J	0.0806	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	10.9	0.0872	0.436	2
06126	Barium	7440-39-3	95.8	0.116	0.436	2
06127	Beryllium	7440-41-7	0.573	0.0174	0.109	2
06128	Cadmium	7440-43-9	0.262	0.0479	0.109	2
06131	Chromium	7440-47-3	33.5	0.131	0.436	2
06132	Cobalt	7440-48-4	9.46	0.0218	0.109	2
06133	Copper	7440-50-8	13.4	0.0872	0.436	2
06135	Lead	7439-92-1	7.95	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.317	0.0545	0.109	2
06139	Nickel	7440-02-0	16.0	0.109	0.436	2
06141	Selenium	7782-49-2	0.236 J	0.0632	0.436	2
06142	Silver	7440-22-4	0.0155 U	0.0155	0.109	2
06145	Thallium	7440-28-0	0.321	0.0327	0.109	2
06148	Vanadium	7440-62-2	57.3	0.0240	0.109	2
06149	Zinc	7440-66-6	54.5	0.610	3.27	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.106	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.48 J	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.72	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11326SLE026	12/11/2011 16:33	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11326SLG026	11/29/2011 00:40	Gregory J Drahovsky	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11326SLG026	11/23/2011 11:15	Olivia Arosemena	1
00381	BNA Soil Sonication	SW-846 3550B	1	11326SLE026	11/22/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113270015A	11/30/2011 10:33	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113270015A	11/23/2011 19:00	Sally L Appleyard	1
01643	Aluminum	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113245708004	11/26/2011 10:55	Eric L Eby	2
01654	Iron	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113245708004	11/26/2011 10:51	Eric L Eby	1
06970	Titanium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113245708004	11/22/2011 06:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113241026002D	11/29/2011 13:45	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477491
LLI Group # 1277528
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/14/2011 17:14

E8902 SDG#: DE289-02*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113241026002C	11/29/2011 13:45	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113241026002B	11/30/2011 00:37	David K Beck	2
06142	Silver	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113241026002A	11/29/2011 13:45	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113245711003	11/22/2011 07:45	Damary Valentin	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113245708004	11/21/2011 10:02	James L Mertz	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113241026002	11/21/2011 10:37	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113245711003	11/21/2011 11:50	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11333621201A	11/29/2011 13:50	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11333621202A	12/02/2011 17:39	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11332243201A	12/01/2011 20:15	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	1	11333621201A	11/29/2011 06:00	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11333621202A	11/29/2011 06:05	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11332039401B	11/28/2011 12:30	Michelle L Lalli	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11332243201A	11/28/2011 11:00	Michelle L Lalli	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11326SLE026	Sample number(s): 6477490-6477491								
Aniline	170 U	170.	500	ug/kg	84		20-115		
Benzidine	1,200 U	1,200.	3,300	ug/kg	57		15-121		
Benzoic acid	170 U	170.	500	ug/kg	97		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	99		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	102		73-114		
Carbazole	17 U	17.	170	ug/kg	103		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	99		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	65		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	94		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	95		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	96		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	97		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	101		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	95		74-115		
Dibenzofuran	17 U	17.	170	ug/kg	93		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	92		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	92		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	91		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	55		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	99		75-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	100		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	106		83-120		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	99		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	88		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	99		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	103		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	101		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	97		75-117		
Hexachlorobenzene	17 U	17.	170	ug/kg	102		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	92		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	83		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	92		61-109		
Isophorone	17 U	17.	170	ug/kg	97		69-110		
2-Methylphenol	33 U	33.	170	ug/kg	105		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	99		66-117		
2-Nitroaniline	17 U	17.	170	ug/kg	101		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	97		62-109		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
4-Nitroaniline	67	U	67.	170	ug/kg	65		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	95		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	95		76-111		
4-Nitrophenol	170		170.	500	ug/kg	90		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	94		63-107		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	104		67-141		
Pentachlorophenol	170		170.	500	ug/kg	101		51-117		
	U									
Phenol	17	U	17.	170	ug/kg	101		58-112		
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	93		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	102		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 11326SLG026 Sample number(s): 6477490-6477491										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	96		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	98		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	98		73-113		
Benzo(a)anthracene	0.67	U	0.67	1.7	ug/kg	98		74-120		
Benzo(a)pyrene	0.67	U	0.67	1.7	ug/kg	98		58-129		
Benzo(b)fluoranthene	0.67	U	0.67	1.7	ug/kg	105		63-143		
Benzo(g,h,i)perylene	0.67	U	0.67	1.7	ug/kg	100		66-150		
Benzo(k)fluoranthene	0.67	U	0.67	1.7	ug/kg	95		54-142		
Butylbenzylphthalate	6.0	U	6.0	18	ug/kg	102		65-131		
Di-n-butylphthalate	6.0	U	6.0	18	ug/kg	108		75-137		
Chrysene	0.33	U	0.33	1.7	ug/kg	99		73-114		
Dibenz(a,h)anthracene	0.67	U	0.67	1.7	ug/kg	99		53-138		
Diethylphthalate	6.0	U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0	U	6.0	18	ug/kg	107		79-121		
Bis(2-Ethylhexyl)phthalate	6.0	U	6.0	18	ug/kg	113		67-143		
Fluoranthene	0.67	U	0.67	1.7	ug/kg	103		64-120		
Fluorene	0.67	U	0.67	1.7	ug/kg	105		71-120		
Indeno(1,2,3-cd)pyrene	0.67	U	0.67	1.7	ug/kg	99		56-134		
1-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	93		72-120		
2-Methylnaphthalene	0.67	U	0.67	1.7	ug/kg	92		62-120		
Naphthalene	0.67	U	0.67	1.7	ug/kg	95		67-120		
N-Nitrosodimethylamine	0.67	U	0.67	1.7	ug/kg	91		55-118		
Di-n-octylphthalate	6.0	U	6.0	18	ug/kg	101		68-162		
Phenanthrene	0.67	U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67	U	0.67	1.7	ug/kg	95		72-119		
Batch number: 113270015A Sample number(s): 6477490-6477491										
Aroclor 5432	1.0	U	1.0	3.3	ug/kg					
Aroclor 5442	1.0	U	1.0	3.3	ug/kg	70	67	36-106	3	30
Aroclor 5460	1.0	U	1.0	3.3	ug/kg					
PCB-1016	0.33	U	0.33	1.7	ug/kg	88		72-120		
PCB-1221	0.33	U	0.33	1.7	ug/kg					
PCB-1232	0.33	U	0.33	1.7	ug/kg					
PCB-1242	0.33	U	0.33	1.7	ug/kg					
PCB-1248	0.33	U	0.33	1.7	ug/kg					
PCB-1254	0.33	U	0.33	1.7	ug/kg					
PCB-1260	0.39	U	0.39	1.7	ug/kg	102		65-137		
PCB-1262	0.33	U	0.33	1.7	ug/kg					
PCB-1268	0.33	U	0.33	1.7	ug/kg					
Batch number: 113241026002A Sample number(s): 6477490-6477491										
Antimony	0.0718	U	0.0718	0.194	mg/kg	70		40-227		
Arsenic	0.0777	U	0.0777	0.388	mg/kg	96		83-111		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Beryllium	0.0155 U	0.0155	0.0971	mg/kg	97		84-112		
Cadmium	0.0427 U	0.0427	0.0971	mg/kg	99		83-111		
Chromium	0.117 U	0.117	0.388	mg/kg	104		77-123		
Cobalt	0.0194 U	0.0194	0.0971	mg/kg	99		85-114		
Copper	0.0777 U	0.0777	0.388	mg/kg	99		81-110		
Lead	0.0099 U	0.0099	0.194	mg/kg	99		84-112		
Nickel	0.0971 U	0.0971	0.388	mg/kg	102		81-110		
Silver	0.0138 U	0.0138	0.0971	mg/kg	101		83-112		
Thallium	0.0291 U	0.0291	0.0971	mg/kg	99		82-112		
Vanadium	0.0214 U	0.0214	0.0971	mg/kg	99		76-110		
Zinc	0.689 J	0.544	2.91	mg/kg	99		82-110		
Batch number: 113241026002B	Sample number(s): 6477490-6477491								
Selenium	0.0563 U	0.0563	0.388	mg/kg	99		79-110		
Batch number: 113241026002C	Sample number(s): 6477490-6477491								
Molybdenum	0.0485 U	0.0485	0.0971	mg/kg	96		80-110		
Batch number: 113241026002D	Sample number(s): 6477490-6477491								
Barium	0.103 U	0.103	0.388	mg/kg	98		83-110		
Batch number: 113245708004	Sample number(s): 6477490-6477491								
Aluminum	5.93 U	5.93	19.6	mg/kg	79		40-127		
Boron	0.353 U	0.353	4.90	mg/kg	97		83-110		
Calcium	6.46 J	2.45	19.6	mg/kg	100		81-110		
Iron	3.25 J	2.56	19.6	mg/kg	84		47-129		
Lithium	0.61 U	0.61	2.0	mg/kg	101		80-120		
Magnesium	2.95 J	0.431	9.80	mg/kg	85		63-116		
Manganese	0.0588 J	0.0353	0.490	mg/kg	97		85-116		
Phosphorus	1.31 J	0.343	9.80	mg/kg	102		80-120		
Potassium	11.1 U	11.1	49.0	mg/kg	96		71-110		
Sodium	5.83 U	5.83	98.0	mg/kg	96		76-110		
Strontium	0.0245 U	0.0245	0.490	mg/kg	98		84-110		
Tin	1.21 J	0.314	9.80	mg/kg	98		86-120		
Titanium	0.0696 U	0.0696	0.980	mg/kg	82		80-120		
Zirconium	0.451 U	0.451	4.90	mg/kg	103		80-120		
Batch number: 113245711003	Sample number(s): 6477490-6477491								
Mercury	0.0068 U	0.0068	0.0972	mg/kg	92		83-119		
Batch number: 11332243201A	Sample number(s): 6477490-6477491								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	103		80-120		
Batch number: 11333621201A	Sample number(s): 6477490-6477491								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	96		90-110		
Batch number: 11333621202A	Sample number(s): 6477490-6477491								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	107		85-115		
Batch number: 11332039401B	Sample number(s): 6477490-6477491								
17a pH by 9045C					100		95-105		
Batch number: 11335162401B	Sample number(s): 6477490-6477491								
Moisture Content by 160.3					99		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 11326SLE026 Sample number(s): 6477490-6477491 UNSPK: P473891									
Aniline	55	67	18-116	19	30				
Benzidine	27*	44	35-141	49*	30				
Benzoic acid	36	32	10-173	9	30				
Benzyl alcohol	64*	75	67-115	16	30				
4-Bromophenyl-phenylether	69	77	67-129	12	30				
Carbazole	70	78	64-120	11	30				
4-Chloro-3-methylphenol	67	76	62-122	13	30				
4-Chloroaniline	56	67	13-107	18	30				
bis(2-Chloroethoxy)methane	62*	74*	75-104	19	30				
bis(2-Chloroethyl)ether	60	73	60-116	20	30				
bis(2-Chloroisopropyl)ether	61	74	55-142	18	30				
2-Chloronaphthalene	69	80	50-141	15	30				
2-Chlorophenol	66*	78	73-121	17	30				
4-Chlorophenyl-phenylether	67*	77*	80-109	14	30				
Dibenzofuran	65*	74	71-112	13	30				
1,2-Dichlorobenzene	58*	69	66-108	18	30				
1,3-Dichlorobenzene	54*	67	63-109	21	30				
1,4-Dichlorobenzene	55*	68	58-108	20	30				
3,3'-Dichlorobenzidine	49	59	28-109	19	30				
2,4-Dichlorophenol	68	78	66-123	14	30				
2,4-Dimethylphenol	68	77	68-118	12	30				
3,5-Dimethylphenol	72	83	71-127	13	30				
4,6-Dinitro-2-methylphenol	49	51	11-126	3	30				
2,4-Dinitrophenol	31	29	20-143	7	30				
2,4-Dinitrotoluene	69	77	56-129	11	30				
2,6-Dinitrotoluene	70	76	69-123	9	30				
1,2-Diphenylhydrazine	70*	81	71-129	15	30				
bis(2-Ethylhexyl)phthalate	67	77	63-122	14	30				
Hexachlorobenzene	68*	78	77-114	13	30				
Hexachlorobutadiene	57*	71	62-120	22	30				
Hexachlorocyclopentadiene	57	60	10-153	6	30				
Hexachloroethane	54*	67	57-109	20	30				
Isophorone	64*	76	73-102	18	30				
2-Methylphenol	68*	80	75-111	17	30				
4-Methylphenol	63	76	59-123	19	30				
2-Nitroaniline	71	78	67-125	10	30				
3-Nitroaniline	68	74	59-122	9	30				
4-Nitroaniline	52	57	41-109	9	30				
Nitrobenzene	64	76	57-125	17	30				
2-Nitrophenol	63	73	56-127	16	30				
4-Nitrophenol	59	59	37-129	1	30				
N-Nitroso-di-n-propylamine	57*	71	60-116	21	30				
N-Nitrosodiphenylamine	72	81	71-122	13	30				
Pentachlorophenol	60	52	28-127	14	30				
Phenol	65	79	58-126	19	30				
1,2,4-Trichlorobenzene	61*	72	72-115	16	30				
2,4,5-Trichlorophenol	70	77	58-129	10	30				
2,4,6-Trichlorophenol	69	75	56-134	9	30				
Batch number: 11326SLG026 Sample number(s): 6477490-6477491 UNSPK: P473891									
Acenaphthene	94	91	63-105	3	30				

*- Outside of specification

**.-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Acenaphthylene	97	88	67-114	9	30				
Anthracene	98	93	73-115	4	30				
Benzo(a)anthracene	96	94	59-128	2	30				
Benzo(a)pyrene	95	93	58-142	2	30				
Benzo(b)fluoranthene	102	101	54-163	0	30				
Benzo(g,h,i)perylene	82	79	33-141	3	30				
Benzo(k)fluoranthene	92	90	57-153	2	30				
Butylbenzylphthalate	105	103	57-173	2	30				
Di-n-butylphthalate	110	107	65-148	2	30				
Chrysene	95	93	67-123	2	30				
Dibenz(a,h)anthracene	88	86	22-133	2	30				
Diethylphthalate	108	105	70-136	3	30				
Dimethylphthalate	105	107	74-118	2	30				
Bis(2-Ethylhexyl)phthalate	92	94	39-167	2	30				
Fluoranthene	105	102	51-149	3	30				
Fluorene	99	95	66-122	4	30				
Indeno(1,2,3-cd)pyrene	87	84	21-143	3	30				
1-Methylnaphthalene	84	80	72-123	4	30				
2-Methylnaphthalene	80	77	64-103	3	30				
Naphthalene	86	86	61-102	1	30				
N-Nitrosodimethylamine	34*	34*	48-113	2	30				
Di-n-octylphthalate	93	93	40-192	1	30				
Phenanthrene	96	92	62-122	4	30				
Pyrene	87	84	51-131	3	30				

Batch number: 113270015A
PCB-1016
PCB-1260

Sample number(s): 6477490-6477491 UNSPK: 6477490
75 77 29-146 3 50
83 85 39-149 2 50

Batch number: 113241026002A

Antimony	17*	24*	75-125	21*	20	0.170 J	0.251	38* (1)	20
Arsenic	120 (2)	315 (2)	75-125	27*	20	9.95	19.1	63*	20
Beryllium	99	141*	75-125	18	20	0.842	1.20	35*	20
Cadmium	113	133*	75-125	13	20	0.170	0.166	3 (1)	20
Chromium	133*	213*	75-125	18	20	26.3	47.5	57*	20
Cobalt	116	148*	75-125	20	20	11.1	22.0	66*	20
Copper	123	235*	75-125	22*	20	32.1	66.3	70*	20
Lead	132 (2)	322 (2)	75-125	26*	20	14.6	27.7	62*	20
Nickel	133*	227*	75-125	23*	20	21.7	44.2	68*	20
Silver	107	124	75-125	14	20	0.0245 J	0.0472 J	64* (1)	20
Thallium	114	149*	75-125	15	20	0.390	0.646	50* (1)	20
Vanadium	162 (2)	300 (2)	75-125	17	20	55.1	97.3	55*	20
Zinc	146 (2)	375 (2)	75-125	23*	20	72.3	144	66*	20

Batch number: 113241026002B
Selenium

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866
81 80 75-125 1 20 0.442 0.300 J 38* (1) 20

Batch number: 113241026002C
Molybdenum

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866
98 117 75-125 16 20 0.518 0.434 18 (1) 20

Batch number: 113241026002D
Barium

Sample number(s): 6477490-6477491 UNSPK: P475866 BKG: P475866
146 (2) 388 (2) 75-125 21* 20 87.5 171 65* 20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113245708004	Sample number(s): 6477490-6477491 UNSPK: P467994 BKG: P467994								
Aluminum	1838 (2)	1801 (2)	75-125	0	20	17,200	16,900	2	20
Boron	97	97	84-115	3	20	4.24 J	4.57 J	8 (1)	20
Calcium	166 (2)	180 (2)	75-125	2	20	4,310	4,290	0	20
Iron	1639 (2)	569 (2)	75-125	4	20	26,400	24,000	9	20
Lithium	99	98	82-114	2	20	31.1	29.0	7	20
Magnesium	376 (2)	385 (2)	75-125	1	20	7,400	6,950	6	20
Manganese	-1 (2)	137 (2)	75-125	21*	20	289	278	4	20
Phosphorus	115 (2)	111 (2)	75-125	0	20	514	491	5	20
Potassium	158*	155*	75-125	0	20	2,690	2,670	1	20
Sodium	98	99	75-125	3	20	151	198	27* (1)	20
Strontium	99	99	75-115	3	20	16.4	18.6	12	20
Tin	85	86	80-110	4	20	20.4	2.70 J	153* (1)	20
Titanium	430 (2)	424 (2)	75-125	1	20	967	999	3	20
Zirconium	99	99	81-110	3	20	6.90	7.27	5 (1)	20
Batch number: 113245711003	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
Mercury	97	99	65-135	4	20	0.0066 U	0.0070 U	0 (1)	20
Batch number: 11332243201A	Sample number(s): 6477490-6477491 UNSPK: P475869 BKG: P475869								
3a Cr VI by EPA 7199	99		75-125			1.3	0.43 J	100* (1)	20
Batch number: 11333621201A	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
11a Anions by 300.0 - Fluoride	96		80-120			0.80 U	0.80 U	0 (1)	20
Batch number: 11333621202A	Sample number(s): 6477490-6477491 UNSPK: 6477490 BKG: 6477490								
7a Perchlorate EPA 314.0	107		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11332039401B	Sample number(s): 6477490-6477491 BKG: 6477491								
17a pH by 9045C						8.72	8.72	0	3
Batch number: 11335162401B	Sample number(s): 6477490-6477491 BKG: P463909								
Moisture Content by 160.3						7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11326SLE026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6477490	92	95	73	80	83	82
6477491	91	96	91	84	91	83
Blank	96	101	96	86	92	86
LCS	99	103	96	89	90	86
MS	65	67	66	60	63	59

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/14/11 at 05:14 PM

Group Number: 1277528

Surrogate Quality Control

MSD	79	80	72	71	74	71
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11326SLG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6477490	99	106	92
6477491	98	88	87
Blank	92	87	89
LCS	106	94	98
MS	104	97	90
MSD	104	92	89
Limits:	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113270015A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6477490	95	105
6477491	90	100
Blank	88	103
LCS	91	106
LCSD	93	108
MS	75	100
MSD	83	94
Limits:	53-139	45-120

*- Outside of specification

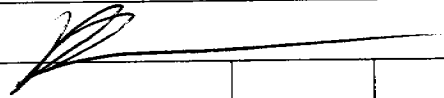
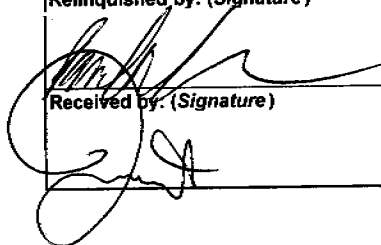
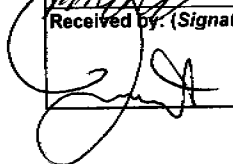
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acct# 13013 Cup# 1277528

sample# 6477490-91

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary								Other Instructions and Notes						
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																						
Samplers Signatures: 														*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																	
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-SS Sleeve			X	X													
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X									
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-SS Sleeve			X	X													
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X									
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)								Laboratory:										
		11/18/2011 / 1630										Lancaster Laboratories, Inc.										
Received by: (Signature)		Date/Time		Airbill No.(s)																		
		11/18/11 0950		8767 9857 4982																		

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/19/2011
Group Number: 1277529
SDG: DX155
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

SL-001-SA8S-SB-4.0-5.0 Soil
SL-012-SA8S-SB-4.0-5.0 Soil

Lancaster Labs (LLI) #

6477492
6477493

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0547 JQ	0.0372	1.12	1
11031	12378-PeCDD	40321-76-4	0.0784 JQ	0.0306	5.58	1
11031	123478-HxCDD	39227-28-6	0.0477 JB	0.0185	5.58	1
11031	123678-HxCDD	57653-85-7	0.0609 JBQ	0.0187	5.58	1
11031	123789-HxCDD	19408-74-3	0.0531 JBQ	0.0195	5.58	1
11031	1234678-HpCDD	35822-46-9	0.334 JBQ	0.0189	5.58	1
11031	OCDD	3268-87-9	0.761 JBQ	0.0224	11.2	1
11031	2378-TCDF	51207-31-9	0.0395 JQ	0.0260	1.12	1
11031	12378-PeCDF	57117-41-6	0.106 JB	0.0153	5.58	1
11031	23478-PeCDF	57117-31-4	0.107 JB	0.0148	5.58	1
11031	123478-HxCDF	70648-26-9	0.105 JB	0.0124	5.58	1
11031	123678-HxCDF	57117-44-9	0.0364 JBQ	0.00996	5.58	1
11031	123789-HxCDF	72918-21-9	0.0227 JB	0.0138	5.58	1
11031	234678-HxCDF	60851-34-5	0.0599 JBQ	0.0101	5.58	1
11031	1234678-HpCDF	67562-39-4	0.0761 JB	0.00694	5.58	1
11031	1234789-HpCDF	55673-89-7	0.0133 JBQ	0.0120	5.58	1
11031	OCDF	39001-02-0	0.145 JB	0.0342	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	93	32 - 141
13C12-123678-HxCDD	99	28 - 130
13C12-123789-HxCDD	95	28 - 130
13C12-1234678-HpCDD	101	23 - 140
13C12-OCDD	106	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	94	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	84	26 - 123
13C12-234678-HxCDF	87	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	107	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	80	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-001-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-001-SA8S-SB

LLI Sample # SW 6477492
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 10:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5518 SDG#: DX155-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 19:59	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.9	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0383 U	0.0383	1.10	1
11031	12378-PeCDD	40321-76-4	0.0619 JQ	0.0334	5.52	1
11031	123478-HxCDD	39227-28-6	0.0292 JBQ	0.0207	5.52	1
11031	123678-HxCDD	57653-85-7	0.0205 U	0.0205	5.52	1
11031	123789-HxCDD	19408-74-3	0.0428 JB	0.0195	5.52	1
11031	1234678-HpCDD	35822-46-9	0.225 JBQ	0.0212	5.52	1
11031	OCDD	3268-87-9	0.588 JB	0.0223	11.0	1
11031	2378-TCDF	51207-31-9	0.0343 JQ	0.0301	1.10	1
11031	12378-PeCDF	57117-41-6	0.0756 JB	0.0158	5.52	1
11031	23478-PeCDF	57117-31-4	0.113 JB	0.0157	5.52	1
11031	123478-HxCDF	70648-26-9	0.0423 JBQ	0.0160	5.52	1
11031	123678-HxCDF	57117-44-9	0.0165 JB	0.0128	5.52	1
11031	123789-HxCDF	72918-21-9	0.0401 JB	0.0162	5.52	1
11031	234678-HxCDF	60851-34-5	0.0570 JBQ	0.0119	5.52	1
11031	1234678-HpCDF	67562-39-4	0.0805 JB	0.00853	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0159 JBQ	0.0147	5.52	1
11031	OCDF	39001-02-0	0.161 JB	0.0338	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	84	32 - 141
13C12-123678-HxCDD	88	28 - 130
13C12-123789-HxCDD	86	28 - 130
13C12-1234678-HpCDD	94	23 - 140
13C12-OCDD	102	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	76	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 11/19/2011 09:50

Reported: 12/02/2011 09:10

X5519 SDG#: DX155-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-012-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-012-SA8S-SB

LLI Sample # SW 6477493
LLI Group # 1277529
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2011 09:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/19/2011 09:50

Suite 210

Reported: 12/02/2011 09:10

Chantilly VA 20151

X5519 SDG#: DX155-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11326002	11/30/2011 20:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11326002	11/22/2011 09:15	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11335162401B	12/01/2011 22:18	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:10 AM

Group Number: 1277529

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6477492-6477493				99		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11326002	Sample number(s): 6477492-6477493								
2378-TCDD	0.0443 U	0.0443	1.00	ng/kg	106		67-158		
12378-PeCDD	0.0284 U	0.0284	5.00	ng/kg	103		70-142		
123478-HxCDD	0.0393 J	0.0213	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0367 J	0.0212	5.00	ng/kg	93		76-134		
123789-HxCDD	0.0256 J	0.0201	5.00	ng/kg	102		64-162		
1234678-HpCDD	0.234 J	0.0234	5.00	ng/kg	98		70-140		
OCDD	0.377 J	0.0192	10.0	ng/kg	94		78-144		
2378-TCDF	0.0281 U	0.0281	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0345 J	0.0141	5.00	ng/kg	101		80-134		
23478-PeCDF	0.0494 J	0.0130	5.00	ng/kg	92		68-160		
123478-HxCDF	0.0287 J	0.0142	5.00	ng/kg	93		72-134		
123678-HxCDF	0.0276 J	0.0133	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0277 J	0.0148	5.00	ng/kg	93		78-130		
234678-HxCDF	0.0408 J	0.0133	5.00	ng/kg	92		70-156		
1234678-HpCDF	0.104 J	0.00840	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.0229 J	0.0121	5.00	ng/kg	94		78-138		
OCDF	0.106 J	0.0280	10.0	ng/kg	92		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11335162401B Moisture Content by 160.3	Sample number(s): 6477492-6477493					BKG: P463909 7.6	7.4	2	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/02/11 at 09:10 AM

Group Number: 1277529

Surrogate Quality Control

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11326002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6477492	76	85	70	84	87	77
6477493	72	72	58	75	74	69
Blank	85	96	83	91	89	97
OPR	70	79	66	77	72	70
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6477492	107	78	80	93	93	99
6477493	99	71	76	80	84	88
Blank	107	96	101	98	94	99
OPR	92	74	80	83	82	85
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6477492	95	101	106	74	94	
6477493	86	94	102	67	81	
Blank	97	105	114	86	102	
OPR	82	90	96	67	82	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

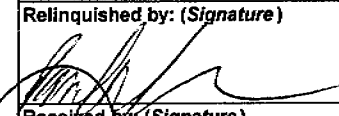
(2) The unspiked result was more than four times the spike added.

acct#13013

Ap#1277529

sample# 6477492-93

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING						Primary									
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected For samples collected from Subarea 6 (SA6) & Subarea 7 (SA7) also report Tetralin under EPA Method 8270C.																Other Instructions and Notes	
Samplers Signatures: 																	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 60106020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)			
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-SS Sleeve			X	X								
SL-001-SA8S-SB-4.0-5.0	11.18.11	1040	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-SS Sleeve			X	X								
SL-012-SA8S-SB-4.0-5.0	11.18.11	0905	SOIL	NONE	1-16 oz Jar	X	X			X	X	X	X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)											Laboratory:		
		11/18/2011 / 1630													Lancaster Laboratories, Inc.		
Received by: (Signature)		Date/Time		Airbill No.(s)													
		11/18/11 09150		8767 9857 4982													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 29, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/02/2011

Group Number: 1279187

SDG: DE291

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
DUP17-SA6-QC-120111 Soil	6487688
SL-023-SA8S-SB-4.0-5.0 Soil	6487689
SL-023-SA8S-SB-9.0-10.0 Soil	6487690
SL-022-SA8S-SB-4.0-5.0 Soil	6487691
SL-022-SA8S-SB-8.0-9.0 Soil	6487692
EB-SA6-SB-120111 Water	6487693

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC

CDM Federal Services Program

Attn: Todd Burgess

COPY TO

1 COPY TO

Data Package Group

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Chad A. Moline
Group Leader

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	18	U 18	180		1
04688	Acenaphthylene	208-96-8	18	U 18	180		1
04688	Aniline	62-53-3	180	U 180	540		1
04688	Anthracene	120-12-7	26	J 18	180		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,600		1
04688	Benzo(a)anthracene	56-55-3	18	U 18	180		1
04688	Benzo(a)pyrene	50-32-8	21	J 18	180		1
04688	Benzo(b)fluoranthene	205-99-2	32	J 18	180		1
04688	Benzo(g,h,i)perylene	191-24-2	83	J 18	180		1
04688	Benzo(k)fluoranthene	207-08-9	18	U 18	180		1
04688	Benzoic acid	65-85-0	180	U 180	540		1
04688	Benzyl alcohol	100-51-6	180	U 180	540		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Butylbenzylphthalate	85-68-7	18	U 18	180		1
04688	Di-n-butylphthalate	84-74-2	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	36	U 36	180		1
04688	4-Chloroaniline	106-47-8	72	U 72	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	36	U 36	180		1
04688	Chrysene	218-01-9	29	J 18	180		1
04688	Dibenz(a,h)anthracene	53-70-3	18	U 18	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	360		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	Diethylphthalate	84-66-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	36	U 36	180		1
04688	3,5-Dimethylphenol	108-68-9	36	U 36	180		1
04688	Dimethylphthalate	131-11-3	18	U 18	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	540		1
04688	2,4-Dinitrophenol	51-28-5	360	U 360	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	36	U 36	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	34	J 18	360		1
04688	Fluoranthene	206-44-0	18	U 18	180		1
04688	Fluorene	86-73-7	18	U 18	180		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	72	U 72	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	540		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	50	J 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	18	U 18	180		1
04688	2-Methylnaphthalene	91-57-6	18	U 18	180		1
04688	2-Methylphenol	95-48-7	36	U 36	180		1
04688	4-Methylphenol	106-44-5	36	U 36	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	Naphthalene	91-20-3	18	U 18	180		1
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	36	U 36	180		1
04688	4-Nitroaniline	100-01-6	72	U 72	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	540		1
04688	N-Nitrosodimethylamine	62-75-9	36	U 36	180		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Di-n-octylphthalate	117-84-0	18	U 18	180		1
04688	Pentachlorophenol	87-86-5	180	U 180	540		1
04688	Phenanthrene	85-01-8	18	U 18	180		1
04688	Phenol	108-95-2	18	U 18	180		1
04688	Pyrene	129-00-0	18	U 18	180		1
04688	Tetralin	119-64-2	180	U 180	180		1
	1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.						
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	36	U 36	180		1
04688	2,4,6-Trichlorophenol	88-06-2	36	U 36	180		1
Herbicides	SW-846 8151A		ug/kg	ug/kg	ug/kg	ug/kg	
10401	2,4-D	94-75-7	1.3	U 1.3	3.9		1
10401	Dalapon	75-99-0	4.7	U 4.7	9.7		1
10401	2,4-DB	94-82-6	0.67	U 0.67	1.8		1
10401	Dicamba	1918-00-9	0.43	U 0.43	1.3		1
10401	Dinoseb	88-85-7	0.86	U 0.86	2.6		1
10401	2,4-DP (Dichlorprop)	120-36-5	0.86	U 0.86	1.8		1
10401	MCPA	94-74-6	140	J 82	270		1
10401	MCPP (Mecoprop)	93-65-2	81	U 81	270		1
10401	2,4,5-T	93-76-5	0.088	U 0.088	0.18		1
10401	2,4,5-TP	93-72-1	0.096	J 0.081	0.18		1
Pesticides/PCBs	SW-846 8081A		ug/kg	ug/kg	ug/kg	ug/kg	
01363	Aldrin	309-00-2	0.071	U 0.071	0.18		1
01363	Alpha BHC	319-84-6	0.037	U 0.037	0.18		1
01363	Beta BHC	319-85-7	0.065	U 0.065	0.18		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/kg	ug/kg	ug/kg	ug/kg	
01363	Gamma BHC - Lindane	58-89-9	0.037 U	0.037	0.18		1
01363	Chlordane	57-74-9	0.86 U	0.86	3.7		1
01363	p,p-DDD	72-54-8	0.071 U	0.071	0.37		1
01363	p,p-DDE	72-55-9	0.071 U	0.071	0.37		1
01363	p,p-DDT	50-29-3	0.27 J	0.071	0.37		1
01363	Delta BHC	319-86-8	0.039 U	0.039	0.18		1
01363	Dieldrin	60-57-1	0.21 J	0.071	0.37		1
01363	Endosulfan I	959-98-8	0.048 U	0.048	0.18		1
01363	Endosulfan II	33213-65-9	0.10 J	0.071	0.37		1
01363	Endosulfan Sulfate	1031-07-8	0.071 U	0.071	0.37		1
01363	Endrin	72-20-8	0.071 U	0.071	0.37		1
01363	Endrin Aldehyde	7421-93-4	0.24 J	0.071	0.37		1
01363	Endrin Ketone	53494-70-5	0.071 U	0.071	0.37		1
01363	Heptachlor	76-44-8	0.065 U	0.065	0.18		1
01363	Heptachlor Epoxide	1024-57-3	0.037 U	0.037	0.18		1
01363	Methoxychlor	72-43-5	0.37 U	0.37	1.8		1
01363	Mirex	2385-85-5	0.071 U	0.071	0.37		1
01363	Toxaphene	8001-35-2	9.9 U	9.9	9.9		1
The response for a target analyte(s) in the continuing calibration verification standard is outside the QC acceptance limits. This effect is attributed to the sample matrix based on our experience with the site, and the data is reported. The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.							
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.6		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.6		1
10225	Aroclor 5460	11126-42-4	7.4	1.1	3.6		1
10225	PCB-1016	12674-11-2	0.36 U	0.36	1.8		1
10225	PCB-1221	11104-28-2	0.36 U	0.36	1.8		1
10225	PCB-1232	11141-16-5	0.36 U	0.36	1.8		1
10225	PCB-1242	53469-21-9	0.36 U	0.36	1.8		1
10225	PCB-1248	12672-29-6	0.36 U	0.36	1.8		1
10225	PCB-1254	11097-69-1	6.6	0.36	1.8		1
10225	PCB-1260	11096-82-5	13	0.42	1.8		1
10225	PCB-1262	37324-23-5	0.36 U	0.36	1.8		1
10225	PCB-1268	11100-14-4	0.36 U	0.36	1.8		1
GC Miscellaneous		SW-846 8015B	ug/kg	ug/kg	ug/kg	ug/kg	
10501	Ethanol	64-17-5	110 U	110	540		1
10501	Isopropanol	67-63-0	110 U	110	540		1
10501	Methanol	67-56-1	130 J	110	540		1
GC Miscellaneous		SW-846 8015B modified	mg/kg	mg/kg	mg/kg	mg/kg	
08283	Diethylene glycol	111-46-6	5.4 U	5.4	11		1
08283	Ethylene glycol	107-21-1	5.4 U	5.4	11		1
08283	Propylene glycol	57-55-6	5.4 U	5.4	11		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC Petroleum Hydrocarbons		SW-846 8015B	mg/kg		mg/kg	mg/kg	mg/kg	
10318	m-Terphenyl	92-06-8	1.6	U	1.6	3.8		1
10318	o-Terphenyl	84-15-1	1.6	U	1.6	3.8		1
10318	p-Terphenyl	92-94-4	1.6	U	1.6	3.8		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/kg		mg/kg	mg/kg	mg/kg	
10199	EFH (C12-C14)	n.a.	4.3	U	4.3	13		10
10199	EFH (C15-C20)	n.a.	4.3	U	4.3	13		10
10199	EFH (C21-C30)	n.a.	60		4.3	13		10
10199	EFH (C30 - C40)	n.a.	260		4.3	13		10
10199	EFH (C8-C11)	n.a.	4.3	U	4.3	13		10
Metals		SW-846 6010B	mg/kg		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	13,000		6.41	21.2		1
07914	Boron	7440-42-8	4.71	J	0.382	5.30		1
01650	Calcium	7440-70-2	4,030		2.65	21.2		1
01654	Iron	7439-89-6	19,900		2.77	21.2		1
01656	Lithium	7439-93-2	20.3		0.66	2.1		1
01657	Magnesium	7439-95-4	4,380		0.466	10.6		1
06958	Manganese	7439-96-5	277		0.0382	0.530		1
10145	Phosphorus	7723-14-0	424		0.371	10.6		1
01662	Potassium	7440-09-7	2,470		12.0	53.0		1
01667	Sodium	7440-23-5	215		6.31	106		1
07968	Strontium	7440-24-6	24.1		0.0265	0.530		1
06969	Tin	7440-31-5	2.46	J	0.339	10.6		1
06970	Titanium	7440-32-6	975		0.0753	1.06		1
10146	Zirconium	7440-67-7	3.08	J	0.488	5.30		1
		SW-846 6020	mg/kg		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0881	J	0.0800	0.216		2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.								
06125	Arsenic	7440-38-2	4.74		0.0865	0.432		2
06126	Barium	7440-39-3	104		0.115	0.432		2
06127	Beryllium	7440-41-7	0.678		0.0173	0.108		2
06128	Cadmium	7440-43-9	0.208		0.0476	0.108		2
06131	Chromium	7440-47-3	21.8		0.130	0.432		2
06132	Cobalt	7440-48-4	7.02		0.0216	0.108		2
06133	Copper	7440-50-8	12.1		0.0865	0.432		2
06135	Lead	7439-92-1	11.6		0.0110	0.216		2
06138	Molybdenum	7439-98-7	2.22		0.0541	0.108		2
06139	Nickel	7440-02-0	13.9		0.108	0.432		2
06141	Selenium	7782-49-2	0.733		0.0627	0.432		2
06142	Silver	7440-22-4	0.0398	J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.292		0.0324	0.108		2
06148	Vanadium	7440-62-2	42.4		0.0238	0.108		2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
06149	Zinc	SW-846 6020 7440-66-6	mg/kg 126	mg/kg 0.605	mg/kg 3.24	mg/kg	2
00159	Mercury	SW-846 7471A 7439-97-6	mg/kg 1.62	mg/kg 0.0377	mg/kg 0.537	mg/kg	5
Wet Chemistry							
07332	11a Anions by 300.0 - Fluoride	EPA 300.0 16984-48-8	mg/kg 1.9	mg/kg 0.85	mg/kg 1.1	mg/kg	1
10147	7a Perchlorate EPA 314.0	EPA 314.0 14797-73-0	ug/kg 9.7 U	ug/kg 9.7	ug/kg 32.4	ug/kg	1
05892	3a Cr VI by EPA 7199	SW-846 7199 18540-29-9	mg/kg 0.28 J	mg/kg 0.22	mg/kg 1.1	mg/kg	1
05895	16a Cyanide by 9012B	SW-846 9012B 57-12-5	mg/kg 0.19 U	mg/kg 0.19	mg/kg 0.52	mg/kg	1
		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.75	0.0100	0.0100		1
Wet Chemistry							
11624	Moisture Content by 160.3	EPA 160.3 modified n.a.	% 7.5	% 0.50	% 0.50	%	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.							

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a SVOCs with Tetralin 8270C	SW-846 8270C	1	11337SLC026	12/11/2011 23:48	Holly Berry	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10401	13a Herbicides by EPA 8151	SW-846 8151A	1	113400037A	12/10/2011 06:23	John W Perkins	1
01363	12a Pesticides by 8081A	SW-846 8081A	1	113390023A	12/12/2011 23:54	Jamie L Brillhart	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:07	Jessica L Miller	1
11134	Pesticide Screen Soils Ext	SW-846 3550B	1	113390023A	12/05/2011 18:30	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	113400037A	12/07/2011 07:30	Kerrie A Freeburn	1
10501	18a Alcohols by 8015B	SW-846 8015B	1	113360017A	12/05/2011 23:35	Elizabeth J Marin	1
08283	19a Glycols by 8015B	SW-846 8015B modified	1	113420018A	12/09/2011 01:36	Tyler O Griffin	1
10318	22a Terphenyls by 8015B	SW-846 8015B	1	113390013A	12/06/2011 17:16	Robert Brown	1
10199	9a TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113400014A	12/09/2011 12:44	Heather E Williams	10
11238	EFH Extraction - Soils	SW-846 3550B	1	113400014A	12/06/2011 18:30	Sally L Appleyard	1
10303	Terphenyls soil prep	SW-846 3550B	1	113390013A	12/05/2011 18:00	David S Schrum	1
00380	Solids Extraction for Alcohols	SW-846 8015B	1	113360017A	12/05/2011 16:00	Elizabeth J Marin	1
11551	Solids Glycol Extraction	SW-846 8015B modified	1	113420018A	12/08/2011 17:05	Tyler O Griffin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:54	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:03	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:08	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:08	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:45	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:08	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:42	Nelli S Markaryan	5
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487688
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9101 SDG#: DE291-01FD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:26	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/09/2011 23:38	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:08	Elyse P Brunstetter	1
05895	16a Cyanide by 9012B	SW-846 9012B	1	11339102201B	12/06/2011 18:38	Venia B McFadden	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
05896	Cyanide Solid Distillation	SW-846 9012B	1	11339102201B	12/05/2011 15:45	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9		1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20		1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	7.7 J	6.8	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	25,900	6.67	22.1		1
07914	Boron	7440-42-8	11.3	0.397	5.52		1
01650	Calcium	7440-70-2	70,400	13.8	110		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	33,500	14.4	110		5
01656	Lithium	7439-93-2	34.1	0.68	2.2		1
01657	Magnesium	7439-95-4	9,040	0.485	11.0		1
06958	Manganese	7439-96-5	319	0.0397	0.552		1
10145	Phosphorus	7723-14-0	608	0.386	11.0		1
01662	Potassium	7440-09-7	4,040	12.5	55.2		1
01667	Sodium	7440-23-5	138	6.56	110		1
07968	Strontium	7440-24-6	128	0.0276	0.552		1
06969	Tin	7440-31-5	2.54 J	0.353	11.0		1
06970	Titanium	7440-32-6	1,290	0.0783	1.10		1
10146	Zirconium	7440-67-7	9.49	0.508	5.52		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.236	0.0801	0.216		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	14.7	0.0866	0.433		2
06126	Barium	7440-39-3	130	0.287	1.08		5
06127	Beryllium	7440-41-7	1.14	0.0173	0.108		2
06128	Cadmium	7440-43-9	0.326	0.0476	0.108		2
06131	Chromium	7440-47-3	57.9	0.130	0.433		2
06132	Cobalt	7440-48-4	22.6	0.0216	0.108		2
06133	Copper	7440-50-8	59.0	0.0866	0.433		2
06135	Lead	7439-92-1	26.8	0.0110	0.216		2
06138	Molybdenum	7439-98-7	0.315	0.0541	0.108		2
06139	Nickel	7440-02-0	44.6	0.108	0.433		2
06141	Selenium	7782-49-2	0.217 J	0.0628	0.433		2
06142	Silver	7440-22-4	0.0463 J	0.0154	0.108		2
06145	Thallium	7440-28-0	0.760	0.0325	0.108		2
06148	Vanadium	7440-62-2	123	0.0238	0.108		2
06149	Zinc	7440-66-6	186	0.606	3.25		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0075 U	0.0075	0.107		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.8	0.93	1.2		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.23	1.2		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.40	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:12	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:12	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:31	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 13:58	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:07	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 15:11	Choon Y Tian	5
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487689
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9102 SDG#: DE291-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/12/2011 06:48	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:48	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:11	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:16	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:39	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:02	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:22	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	550		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	180	U 180	550		1
04688	Benzyl alcohol	100-51-6	180	U 180	550		1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180		1
04688	Carbazole	86-74-8	18	U 18	180		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	180		1
04688	4-Chloroaniline	106-47-8	74	U 74	180		1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180		1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180		1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180		1
04688	2-Chlorophenol	95-57-8	18	U 18	180		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	180		1
04688	Dibenzofuran	132-64-9	18	U 18	180		1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180		1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180		1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	180		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	180		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	550		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	180		1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180		1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180		1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	19	J 18	370		1
04688	Hexachlorobenzene	118-74-1	18	U 18	180		1
04688	Hexachlorobutadiene	87-68-3	74	U 74	180		1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	550		1
04688	Hexachloroethane	67-72-1	18	U 18	180		1
04688	Isophorone	78-59-1	18	U 18	180		1
04688	2-Methylphenol	95-48-7	37	U 37	180		1
04688	4-Methylphenol	106-44-5	37	U 37	180		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	18	U 18	180		1
04688	3-Nitroaniline	99-09-2	37	U 37	180		1
04688	4-Nitroaniline	100-01-6	74	U 74	180		1
04688	Nitrobenzene	98-95-3	18	U 18	180		1
04688	2-Nitrophenol	88-75-5	18	U 18	180		1
04688	4-Nitrophenol	100-02-7	180	U 180	550		1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180		1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	180	U 180	550		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	18	U 18	180		1
04688	1,2,4-Trichlorobenzene	120-82-1	18	U 18	180		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	180		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	180		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73	U 0.73	1.8		1
10138	Acenaphthylene	208-96-8	0.36	U 0.36	1.8		1
10138	Anthracene	120-12-7	0.36	U 0.36	1.8		1
10138	Benzo(a)anthracene	56-55-3	0.73	U 0.73	1.8		1
10138	Benzo(a)pyrene	50-32-8	0.73	U 0.73	1.8		1
10138	Benzo(b)fluoranthene	205-99-2	0.73	U 0.73	1.8		1
10138	Benzo(g,h,i)perylene	191-24-2	0.73	U 0.73	1.8		1
10138	Benzo(k)fluoranthene	207-08-9	0.73	U 0.73	1.8		1
10138	Butylbenzylphthalate	85-68-7	6.6	U 6.6	20		1
10138	Di-n-butylphthalate	84-74-2	6.6	U 6.6	20		1
10138	Chrysene	218-01-9	0.36	U 0.36	1.8		1
10138	Dibenz(a,h)anthracene	53-70-3	0.73	U 0.73	1.8		1
10138	Diethylphthalate	84-66-2	6.6	U 6.6	20		1
10138	Dimethylphthalate	131-11-3	6.6	U 6.6	20		1
10138	Fluoranthene	206-44-0	0.73	U 0.73	1.8		1
10138	Fluorene	86-73-7	0.73	U 0.73	1.8		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73	U 0.73	1.8		1
10138	1-Methylnaphthalene	90-12-0	0.73	U 0.73	1.8		1
10138	2-Methylnaphthalene	91-57-6	0.73	U 0.73	1.8		1
10138	Naphthalene	91-20-3	0.73	U 0.73	1.8		1
10138	N-Nitrosodimethylamine	62-75-9	0.73	U 0.73	1.8		1
10138	Di-n-octylphthalate	117-84-0	6.6	U 6.6	20		1
10138	Phenanthrene	85-01-8	0.73	U 0.73	1.8		1
10138	Pyrene	129-00-0	0.73	U 0.73	1.8		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.43	U 0.43	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	19,300	6.57	21.7		1
07914	Boron	7440-42-8	9.40	0.391	5.43		1
01650	Calcium	7440-70-2	97,900	13.6	109		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	25,200	2.83	21.7		1
01656	Lithium	7439-93-2	26.7	0.67	2.2		1
01657	Magnesium	7439-95-4	6,940	0.478	10.9		1
06958	Manganese	7439-96-5	247	0.0391	0.543		1
10145	Phosphorus	7723-14-0	437	0.380	10.9		1
01662	Potassium	7440-09-7	3,320	12.3	54.3		1
01667	Sodium	7440-23-5	212	6.46	109		1
07968	Strontium	7440-24-6	172	0.0271	0.543		1
06969	Tin	7440-31-5	2.40 J	0.347	10.9		1
06970	Titanium	7440-32-6	822	0.0771	1.09		1
10146	Zirconium	7440-67-7	6.93	0.499	5.43		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0839 J	0.0803	0.217		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	5.97	0.0869	0.434		2
06126	Barium	7440-39-3	98.0	0.115	0.434		2
06127	Beryllium	7440-41-7	0.677	0.0174	0.109		2
06128	Cadmium	7440-43-9	0.293	0.0478	0.109		2
06131	Chromium	7440-47-3	39.3	0.130	0.434		2
06132	Cobalt	7440-48-4	8.87	0.0217	0.109		2
06133	Copper	7440-50-8	15.2	0.0869	0.434		2
06135	Lead	7439-92-1	9.32	0.0111	0.217		2
06138	Molybdenum	7439-98-7	0.275	0.0543	0.109		2
06139	Nickel	7440-02-0	18.7	0.109	0.434		2
06141	Selenium	7782-49-2	0.453	0.0630	0.434		2
06142	Silver	7440-22-4	0.0276 J	0.0154	0.109		2
06145	Thallium	7440-28-0	0.287	0.0326	0.109		2
06148	Vanadium	7440-62-2	65.8	0.0239	0.109		2
06149	Zinc	7440-66-6	61.2	0.608	3.26		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0076 U	0.0076	0.108		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.6	0.89	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10 U	10	33.2		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.52	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	9.7	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 00:36	Holly Berry	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/17/2011 17:43	Mark A Clark	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 19:44	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:34	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:02	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:11	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:15	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487690
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9103 SDG#: DE291-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:15	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:51	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:15	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:17	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:52	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:27	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:37	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700		1
04688	Benzoic acid	65-85-0	190	U 190	560		1
04688	Benzyl alcohol	100-51-6	190	U 190	560		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190		1
04688	4-Chloroaniline	106-47-8	75	U 75	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190		1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560		1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	37	U 37	190		1
04688	4-Methylphenol	106-44-5	37	U 37	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	37	U 37	190		1
04688	4-Nitroaniline	100-01-6	75	U 75	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	560		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	560		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190		1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.9		1
10138	Anthracene	120-12-7	0.37 U	0.37	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.7 U	6.7	20		1
10138	Di-n-butylphthalate	84-74-2	6.7 U	6.7	20		1
10138	Chrysene	218-01-9	0.37 U	0.37	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.7 U	6.7	20		1
10138	Dimethylphthalate	131-11-3	6.7 U	6.7	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7 U	6.7	20		1
10138	Fluoranthene	206-44-0	0.75 U	0.75	1.9		1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9		1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.7 U	6.7	20		1
10138	Phenanthrene	85-01-8	0.75 U	0.75	1.9		1
10138	Pyrene	129-00-0	0.75 U	0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,700	6.67	22.1		1
07914	Boron	7440-42-8	9.60	0.397	5.51		1
01650	Calcium	7440-70-2	102,000	13.8	110		5

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	29,000	2.88	22.1		1
01656	Lithium	7439-93-2	31.8	0.68	2.2		1
01657	Magnesium	7439-95-4	8,070	0.485	11.0		1
06958	Manganese	7439-96-5	298	0.0397	0.551		1
10145	Phosphorus	7723-14-0	444	0.386	11.0		1
01662	Potassium	7440-09-7	2,680	12.5	55.1		1
01667	Sodium	7440-23-5	106 J	6.56	110		1
07968	Strontium	7440-24-6	121	0.0276	0.551		1
06969	Tin	7440-31-5	2.48 J	0.353	11.0		1
06970	Titanium	7440-32-6	947	0.0783	1.10		1
10146	Zirconium	7440-67-7	7.88	0.507	5.51		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0824 U	0.0824	0.223		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	6.96	0.0891	0.445		2
06126	Barium	7440-39-3	88.3	0.118	0.445		2
06127	Beryllium	7440-41-7	0.759	0.0178	0.111		2
06128	Cadmium	7440-43-9	0.255	0.0490	0.111		2
06131	Chromium	7440-47-3	32.3	0.134	0.445		2
06132	Cobalt	7440-48-4	11.6	0.0223	0.111		2
06133	Copper	7440-50-8	22.7	0.0891	0.445		2
06135	Lead	7439-92-1	11.6	0.0114	0.223		2
06138	Molybdenum	7439-98-7	0.358	0.0557	0.111		2
06139	Nickel	7440-02-0	20.6	0.111	0.445		2
06141	Selenium	7782-49-2	0.239 J	0.0646	0.445		2
06142	Silver	7440-22-4	0.0190 J	0.0158	0.111		2
06145	Thallium	7440-28-0	0.328	0.0334	0.111		2
06148	Vanadium	7440-62-2	61.3	0.0245	0.111		2
06149	Zinc	7440-66-6	73.5	0.624	3.34		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0080 J	0.0077	0.109		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.7	0.90	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.7		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.63 J	0.22	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.36	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.1	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:08	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:21	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:03	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/09/2011 07:38	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:07	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:15	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:18	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487691
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9104 SDG#: DE291-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:18	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:55	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:18	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:18	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 22:05	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 00:51	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 09:51	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	570		1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800		1
04688	Benzoic acid	65-85-0	190	U 190	570		1
04688	Benzyl alcohol	100-51-6	190	U 190	570		1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190		1
04688	Carbazole	86-74-8	19	U 19	190		1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190		1
04688	4-Chloroaniline	106-47-8	76	U 76	190		1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190		1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190		1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190		1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190		1
04688	2-Chlorophenol	95-57-8	19	U 19	190		1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190		1
04688	Dibenzofuran	132-64-9	19	U 19	190		1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190		1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190		1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190		1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380		1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190		1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190		1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190		1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	570		1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100		1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190		1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190		1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190		1
04688	Hexachlorobenzene	118-74-1	19	U 19	190		1
04688	Hexachlorobutadiene	87-68-3	76	U 76	190		1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	570		1
04688	Hexachloroethane	67-72-1	19	U 19	190		1
04688	Isophorone	78-59-1	19	U 19	190		1
04688	2-Methylphenol	95-48-7	38	U 38	190		1
04688	4-Methylphenol	106-44-5	38	U 38	190		1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.						
04688	2-Nitroaniline	88-74-4	19	U 19	190		1
04688	3-Nitroaniline	99-09-2	38	U 38	190		1
04688	4-Nitroaniline	100-01-6	76	U 76	190		1
04688	Nitrobenzene	98-95-3	19	U 19	190		1
04688	2-Nitrophenol	88-75-5	19	U 19	190		1
04688	4-Nitrophenol	100-02-7	190	U 190	570		1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190		1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190		1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.						
04688	Pentachlorophenol	87-86-5	190	U 190	570		1
04688	Phenol	108-95-2	19	U 19	190		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190		1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190		1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75	U 0.75	1.9		1
10138	Acenaphthylene	208-96-8	0.38	U 0.38	1.9		1
10138	Anthracene	120-12-7	0.38	U 0.38	1.9		1
10138	Benzo(a)anthracene	56-55-3	0.75	U 0.75	1.9		1
10138	Benzo(a)pyrene	50-32-8	0.75	U 0.75	1.9		1
10138	Benzo(b)fluoranthene	205-99-2	0.75	U 0.75	1.9		1
10138	Benzo(g,h,i)perylene	191-24-2	0.75	U 0.75	1.9		1
10138	Benzo(k)fluoranthene	207-08-9	0.75	U 0.75	1.9		1
10138	Butylbenzylphthalate	85-68-7	6.8	U 6.8	20		1
10138	Di-n-butylphthalate	84-74-2	6.8	U 6.8	20		1
10138	Chrysene	218-01-9	0.38	U 0.38	1.9		1
10138	Dibenz(a,h)anthracene	53-70-3	0.75	U 0.75	1.9		1
10138	Diethylphthalate	84-66-2	6.8	U 6.8	20		1
10138	Dimethylphthalate	131-11-3	6.8	U 6.8	20		1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8	U 6.8	20		1
10138	Fluoranthene	206-44-0	0.75	U 0.75	1.9		1
10138	Fluorene	86-73-7	0.75	U 0.75	1.9		1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75	U 0.75	1.9		1
10138	1-Methylnaphthalene	90-12-0	0.75	U 0.75	1.9		1
10138	2-Methylnaphthalene	91-57-6	0.75	U 0.75	1.9		1
10138	Naphthalene	91-20-3	0.75	U 0.75	1.9		1
10138	N-Nitrosodimethylamine	62-75-9	0.75	U 0.75	1.9		1
10138	Di-n-octylphthalate	117-84-0	6.8	U 6.8	20		1
10138	Phenanthrene	85-01-8	0.75	U 0.75	1.9		1
10138	Pyrene	129-00-0	0.75	U 0.75	1.9		1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7		1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7		1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7		1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9		1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9		1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9		1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9		1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9		1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9		1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9		1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9		1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9		1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	28,300	6.81	22.5		1
07914	Boron	7440-42-8	13.0	0.405	5.63		1
01650	Calcium	7440-70-2	54,300	2.81	22.5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Metals							
	SW-846 6010B		mg/kg	mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	38,800	14.7	113		5
01656	Lithium	7439-93-2	43.9	0.70	2.3		1
01657	Magnesium	7439-95-4	10,900	0.495	11.3		1
06958	Manganese	7439-96-5	303	0.0405	0.563		1
10145	Phosphorus	7723-14-0	500	0.394	11.3		1
01662	Potassium	7440-09-7	4,210	12.7	56.3		1
01667	Sodium	7440-23-5	149	6.69	113		1
07968	Strontium	7440-24-6	101	0.0281	0.563		1
06969	Tin	7440-31-5	2.57 J	0.360	11.3		1
06970	Titanium	7440-32-6	1,290	0.0799	1.13		1
10146	Zirconium	7440-67-7	8.60	0.518	5.63		1
	SW-846 6020		mg/kg	mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.109 J	0.0833	0.225		2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	8.39	0.0900	0.450		2
06126	Barium	7440-39-3	110	0.119	0.450		2
06127	Beryllium	7440-41-7	0.816	0.0180	0.113		2
06128	Cadmium	7440-43-9	0.178	0.0495	0.113		2
06131	Chromium	7440-47-3	32.6	0.135	0.450		2
06132	Cobalt	7440-48-4	14.1	0.0225	0.113		2
06133	Copper	7440-50-8	28.7	0.0900	0.450		2
06135	Lead	7439-92-1	12.6	0.0115	0.225		2
06138	Molybdenum	7439-98-7	0.453	0.0563	0.113		2
06139	Nickel	7440-02-0	22.6	0.113	0.450		2
06141	Selenium	7782-49-2	0.128 J	0.0653	0.450		2
06142	Silver	7440-22-4	0.0160 U	0.0160	0.113		2
06145	Thallium	7440-28-0	0.414	0.0338	0.113		2
06148	Vanadium	7440-62-2	65.4	0.0248	0.113		2
06149	Zinc	7440-66-6	85.2	0.630	3.38		2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105		1
Wet Chemistry							
	EPA 300.0		mg/kg	mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	2.5	0.91	1.1		1
	EPA 314.0		ug/kg	ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	34.1		1
	SW-846 7199		mg/kg	mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	1.5	0.23	1.1		1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Action Limit	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.35	0.0100	0.0100		1
Wet Chemistry		EPA 160.3 modified	%	%	%	%	
11624	Moisture Content by 160.3	n.a.	12.0	0.50	0.50		1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11337SLC026	12/12/2011 14:32	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLD026	12/21/2011 17:54	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLD026	12/06/2011 07:30	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11337SLC026	12/05/2011 09:50	Denise L Trimby	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:21	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07914	Boron	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01650	Calcium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01654	Iron	SW-846 6010B	1	113395708002	12/09/2011 07:42	Tara L Snyder	5
01656	Lithium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01657	Magnesium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06958	Manganese	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10145	Phosphorus	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01662	Potassium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
01667	Sodium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
07968	Strontium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06969	Tin	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
06970	Titanium	SW-846 6010B	1	113395708002	12/08/2011 14:11	Joanne M Gates	1
10146	Zirconium	SW-846 6010B	1	113395708002	12/09/2011 07:19	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026002D	12/08/2011 14:21	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487692
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9105 SDG#: DE291-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026002C	12/08/2011 14:21	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026002B	12/12/2011 06:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026002A	12/08/2011 14:21	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711003	12/06/2011 19:19	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708002	12/05/2011 22:16	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026002	12/06/2011 12:55	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711003	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201B	12/15/2011 22:18	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11342342201B	12/10/2011 01:15	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:05	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201B	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11342342201B	12/08/2011 14:30	Carolyn M Mastropietro	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11346039401B	12/12/2011 11:20	Michele L Graham	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Acetone	67-64-1	6 U	6	20		1
10904	Benzene	71-43-2	0.5 U	0.5	5		1
10904	Bromobenzene	108-86-1	1 U	1	5		1
10904	Bromochloromethane	74-97-5	1 U	1	5		1
10904	Bromodichloromethane	75-27-4	1 U	1	5		1
10904	Bromoform	75-25-2	1 U	1	5		1
10904	Bromomethane	74-83-9	1 U	1	5		1
10904	2-Butanone	78-93-3	3 U	3	10		1
10904	n-Butylbenzene	104-51-8	1 U	1	5		1
10904	sec-Butylbenzene	135-98-8	1 U	1	5		1
10904	tert-Butylbenzene	98-06-6	1 U	1	5		1
10904	Carbon Tetrachloride	56-23-5	1 U	1	5		1
10904	Chlorobenzene	108-90-7	0.8 U	0.8	5		1
10904	Chloroethane	75-00-3	1 U	1	5		1
10904	2-Chloroethyl Vinyl Ether	110-75-8	2 U	2	10		1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.						
10904	Chloroform	67-66-3	0.8 U	0.8	5		1
10904	Chloromethane	74-87-3	1 U	1	5		1
10904	2-Chlorotoluene	95-49-8	1 U	1	5		1
10904	4-Chlorotoluene	106-43-4	1 U	1	5		1
10904	Chlorotrifluoroethene	79-38-9	2 U	2	5		1
10904	1,2-Dibromo-3-chloropropane	96-12-8	2 U	2	5		1
10904	Dibromochloromethane	124-48-1	1 U	1	5		1
10904	1,2-Dibromoethane	106-93-4	1 U	1	5		1
10904	Dibromomethane	74-95-3	1 U	1	5		1
10904	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
10904	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
10904	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
10904	Dichlorodifluoromethane	75-71-8	2 U	2	5		1
10904	1,1-Dichloroethane	75-34-3	1 U	1	5		1
10904	1,2-Dichloroethane	107-06-2	1 U	1	5		1
10904	1,1-Dichloroethene	75-35-4	0.8 U	0.8	5		1
10904	cis-1,2-Dichloroethene	156-59-2	0.8 U	0.8	5		1
10904	trans-1,2-Dichloroethene	156-60-5	0.8 U	0.8	5		1
10904	1,2-Dichloropropane	78-87-5	1 U	1	5		1
10904	1,3-Dichloropropane	142-28-9	1 U	1	5		1
10904	2,2-Dichloropropane	594-20-7	1 U	1	5		1
10904	1,1-Dichloropropene	563-58-6	1 U	1	5		1
10904	cis-1,3-Dichloropropene	10061-01-5	1 U	1	5		1
10904	trans-1,3-Dichloropropene	10061-02-6	1 U	1	5		1
10904	Ethylbenzene	100-41-4	0.8 U	0.8	5		1
10904	Freon 113	76-13-1	2 U	2	10		1
10904	Freon 133a	75-88-7	2 U	2	5		1
10904	Hexachlorobutadiene	87-68-3	2 U	2	5		1
10904	2-Hexanone	591-78-6	3 U	3	10		1
10904	Isopropylbenzene	98-82-8	1 U	1	5		1
10904	p-Isopropyltoluene	99-87-6	1 U	1	5		1
10904	Methyl Tertiary Butyl Ether	1634-04-4	0.5 U	0.5	5		1
10904	4-Methyl-2-pentanone	108-10-1	3 U	3	10		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8260B	ug/l	ug/l	ug/l	ug/l	
10904	Methylene Chloride	75-09-2	2 U	2	5		1
10904	n-Propylbenzene	103-65-1	1 U	1	5		1
10904	Styrene	100-42-5	1 U	1	5		1
10904	1,1,1,2-Tetrachloroethane	630-20-6	1 U	1	5		1
10904	1,1,2,2-Tetrachloroethane	79-34-5	1 U	1	5		1
10904	Tetrachloroethene	127-18-4	0.8 U	0.8	5		1
10904	Toluene	108-88-3	0.7 U	0.7	5		1
10904	1,2,3-Trichlorobenzene	87-61-6	1 U	1	5		1
10904	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
10904	1,1,1-Trichloroethane	71-55-6	0.8 U	0.8	5		1
10904	1,1,2-Trichloroethane	79-00-5	0.8 U	0.8	5		1
10904	Trichloroethene	79-01-6	1 U	1	5		1
10904	Trichlorofluoromethane	75-69-4	2 U	2	5		1
10904	1,2,3-Trichloropropane	96-18-4	1 U	1	5		1
10904	1,2,4-Trimethylbenzene	95-63-6	1 U	1	5		1
10904	1,3,5-Trimethylbenzene	108-67-8	1 U	1	5		1
10904	Vinyl Chloride	75-01-4	1 U	1	5		1
10904	m+p-Xylene	179601-23-1	0.8 U	0.8	5		1
10904	o-Xylene	95-47-6	0.8 U	0.8	5		1
GC/MS	Volatiles	SW-846 8260B SIM	ug/l	ug/l	ug/l	ug/l	
00527	1,4-Dioxane	123-91-1	0.5 U	0.5	2.0		1
GC/MS	Semivolatiles	EPA 1625C	ng/l	ng/l	ng/l	ng/l	
10962	N-Nitrosodimethylamine	62-75-9	0.954 J	0.544	1.09		1
The recovery of N-Nitrosodimethylamine was outside of QC limits in the LCSD. This sample was re-extracted outside of the method required holding time, and acceptable QC and comparable data were observed. The data reported here is from the initial extraction of the sample.							
The surrogate recovery of n-nitrosodimethylamine-d6 was above the advisory QC limits in this sample. No further action was taken.							
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	Aniline	62-53-3	1 U	1	5		1
04678	Benzidine	92-87-5	22 U	22	65		1
04678	Benzoic acid	65-85-0	6 U	6	16		1
04678	Benzyl alcohol	100-51-6	5 U	5	16		1
04678	4-Bromophenyl-phenylether	101-55-3	1 U	1	5		1
04678	Carbazole	86-74-8	1 U	1	5		1
04678	4-Chloro-3-methylphenol	59-50-7	1 U	1	5		1
04678	4-Chloroaniline	106-47-8	1 U	1	5		1
04678	bis(2-Chloroethoxy)methane	111-91-1	1 U	1	5		1
04678	bis(2-Chloroethyl)ether	111-44-4	1 U	1	5		1
04678	bis(2-Chloroisopropyl)ether	39638-32-9	1 U	1	5		1
04678	2-Chloronaphthalene	91-58-7	2 U	2	5		1
04678	2-Chlorophenol	95-57-8	1 U	1	5		1
04678	4-Chlorophenyl-phenylether	7005-72-3	2 U	2	5		1
04678	Dibenzofuran	132-64-9	1 U	1	5		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/l	ug/l	ug/l	ug/l	
04678	1,2-Dichlorobenzene	95-50-1	1 U	1	5		1
04678	1,3-Dichlorobenzene	541-73-1	1 U	1	5		1
04678	1,4-Dichlorobenzene	106-46-7	1 U	1	5		1
04678	3,3'-Dichlorobenzidine	91-94-1	2 U	2	5		1
04678	2,4-Dichlorophenol	120-83-2	1 U	1	5		1
04678	2,4-Dimethylphenol	105-67-9	3 U	3	11		1
04678	3,5-Dimethylphenol	108-68-9	3 U	3	11		1
04678	4,6-Dinitro-2-methylphenol	534-52-1	5 U	5	16		1
04678	2,4-Dinitrophenol	51-28-5	11 U	11	32		1
04678	2,4-Dinitrotoluene	121-14-2	1 U	1	5		1
04678	2,6-Dinitrotoluene	606-20-2	1 U	1	5		1
04678	1,2-Diphenylhydrazine	122-66-7	1 U	1	5		1
04678	Hexachlorobenzene	118-74-1	1 U	1	5		1
04678	Hexachlorobutadiene	87-68-3	1 U	1	5		1
04678	Hexachlorocyclopentadiene	77-47-4	5 U	5	16		1
04678	Hexachloroethane	67-72-1	1 U	1	5		1
04678	Isophorone	78-59-1	1 U	1	5		1
04678	2-Methylphenol	95-48-7	1 U	1	5		1
04678	4-Methylphenol	106-44-5	2 U	2	5		1
3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.							
04678	2-Nitroaniline	88-74-4	1 U	1	5		1
04678	3-Nitroaniline	99-09-2	1 U	1	5		1
04678	4-Nitroaniline	100-01-6	1 U	1	5		1
04678	Nitrobenzene	98-95-3	1 U	1	5		1
04678	2-Nitrophenol	88-75-5	1 U	1	5		1
04678	4-Nitrophenol	100-02-7	11 U	11	32		1
04678	N-Nitroso-di-n-propylamine	621-64-7	1 U	1	5		1
04678	N-Nitrosodiphenylamine	86-30-6	2 U	2	5		1
N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.							
04678	Pentachlorophenol	87-86-5	3 U	3	16		1
04678	Phenol	108-95-2	1 U	1	5		1
04678	Tetralin	119-64-2	5 U	5	5		1
1,2,3,4-Tetrahydronaphthalene (Tetralin) was quantified using a single point calibration analyzed at the beginning of each 12 hour tune period.							
04678	1,2,4-Trichlorobenzene	120-82-1	1 U	1	5		1
04678	2,4,5-Trichlorophenol	95-95-4	1 U	1	5		1
04678	2,4,6-Trichlorophenol	88-06-2	1 U	1	5		1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Acenaphthene	83-32-9	0.010 U	0.010	0.051		1
10137	Acenaphthylene	208-96-8	0.010 U	0.010	0.051		1
10137	Anthracene	120-12-7	0.010 U	0.010	0.051		1
10137	Benzo(a)anthracene	56-55-3	0.010 U	0.010	0.051		1
10137	Benzo(a)pyrene	50-32-8	0.010 U	0.010	0.051		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 9

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	ug/l	
10137	Benzo(b)fluoranthene	205-99-2	0.010 U	0.010	0.051		1
10137	Benzo(g,h,i)perylene	191-24-2	0.010 U	0.010	0.051		1
10137	Benzo(k)fluoranthene	207-08-9	0.010 U	0.010	0.051		1
10137	Butylbenzylphthalate	85-68-7	0.051 U	0.051	1.0		1
10137	Di-n-butylphthalate	84-74-2	0.28 J	0.051	1.0		1
10137	Chrysene	218-01-9	0.010 U	0.010	0.051		1
10137	Dibenz(a,h)anthracene	53-70-3	0.010 U	0.010	0.051		1
10137	Diethylphthalate	84-66-2	0.077 J	0.051	1.0		1
10137	Dimethylphthalate	131-11-3	0.051 U	0.051	1.0		1
10137	Bis(2-Ethylhexyl)phthalate	117-81-7	0.075 J	0.051	1.0		1
10137	Fluoranthene	206-44-0	0.010 U	0.010	0.051		1
10137	Fluorene	86-73-7	0.010 U	0.010	0.051		1
10137	Indeno(1,2,3-cd)pyrene	193-39-5	0.010 U	0.010	0.051		1
10137	1-Methylnaphthalene	90-12-0	0.010 U	0.010	0.051		1
10137	2-Methylnaphthalene	91-57-6	0.010 U	0.010	0.051		1
10137	Naphthalene	91-20-3	0.037 J	0.030	0.051		1
10137	N-Nitrosodimethylamine	62-75-9	0.010 U	0.010	0.051		1
10137	Di-n-octylphthalate	117-84-0	0.051 U	0.051	1.0		1
10137	Phenanthrene	85-01-8	0.030 U	0.030	0.051		1
10137	Pyrene	129-00-0	0.010 U	0.010	0.051		1
GC Volatiles	TPH GRO	SW-8015B	ug/l	ug/l	ug/l	ug/l	
08229	TPH-GRO S.CA water C5-C12	n.a.	20 U	20	50		1
Explosives	SW-846 8330A		ug/l	ug/l	ug/l	ug/l	
10131	4-Amino-2,6-Dinitrotoluene	19406-51-0	0.30 U	0.30	0.60	1000000 0	1
10131	2-Amino-4,6-Dinitrotoluene	35572-78-2	0.20 U	0.20	0.60	1000000 0	1
10131	2,6-Diamino-4-nitrotoluene	59229-75-3	0.20 U	0.20	0.60	1000000 0	1
10131	2,4-Diamino-6-nitrotoluene	6629-29-4	0.20 U	0.20	0.60	1000000 0	1
10131	1,3-Dinitrobenzene	99-65-0	0.20 U	0.20	0.60	1000000 0	1
10131	2,4-Dinitrotoluene	121-14-2	0.20 U	0.20	0.60	1000000 0	1
10131	2,6-Dinitrotoluene	606-20-2	0.20 U	0.20	0.60	1000000 0	1
10131	HMX	2691-41-0	0.65 U	0.65	2.0	1000000 0	1
10131	Nitrobenzene	98-95-3	0.20 U	0.20	0.60	1000000 0	1
10131	Nitroglycerin	55-63-0	5.2 U	5.2	15	1000000 0	1
10131	2-Nitrotoluene	88-72-2	0.20 U	0.20	0.60	1000000 0	1
10131	3-Nitrotoluene	99-08-1	0.40 U	0.40	1.2	1000000 0	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Explosives		SW-846 8330A	ug/l	ug/l	ug/l	ug/l	
10131	4-Nitrotoluene	99-99-0	0.60 U	0.60	1.2	1000000 0	1
10131	PETN	78-11-5	6.0 U	6.0	18	1000000 0	1
10131	RDX	121-82-4	1.1	0.20	0.60	1000000 0	1
10131	Tetryl	479-45-8	0.40 U	0.40	0.60	1000000 0	1
10131	1,3,5-Trinitrobenzene	99-35-4	0.20 U	0.20	0.60	1000000 0	1
10131	2,4,6-Trinitrotoluene	118-96-7	0.20 U	0.20	0.60	1000000 0	1
Herbicides		SW-846 8151A	ug/l	ug/l	ug/l	ug/l	
10407	2,4-D	94-75-7	0.17 U	0.17	0.54		1
10407	Dalapon	75-99-0	0.27 U	0.27	1.3		1
10407	2,4-DB	94-82-6	0.32 U	0.32	1.1		1
10407	Dicamba	1918-00-9	0.086 U	0.086	0.32		1
10407	Dinoseb	88-85-7	0.11 U	0.11	0.54		1
10407	2,4-DP (Dichlorprop)	120-36-5	0.17 U	0.17	0.54		1
10407	MCPA	94-74-6	320 U	320	1,100		1
10407	MCPP	93-65-2	54 U	54	210		1
10407	2,4,5-T	93-76-5	0.016 U	0.016	0.054		1
10407	2,4,5-TP	93-72-1	0.011 U	0.011	0.054		1
HPLC Organics		SW-846 8315A	ug/l	ug/l	ug/l	ug/l	
04144	20b Formaldehyde	50-00-0	10 U	10	50		1
Pesticides/PCBs		SW-846 8081A	ug/l	ug/l	ug/l	ug/l	
00177	Aldrin	309-00-2	0.0024 U	0.0024	0.012		1
00177	Alpha BHC	319-84-6	0.0035 U	0.0035	0.012		1
00177	Beta BHC	319-85-7	0.0034 U	0.0034	0.012		1
00177	Gamma BHC - Lindane	58-89-9	0.0024 U	0.0024	0.012		1
00177	Chlordane	57-74-9	0.14 U	0.14	0.59		1
00177	p,p-DDD	72-54-8	0.0059 U	0.0059	0.024		1
00177	p,p-DDE	72-55-9	0.0059 U	0.0059	0.024		1
00177	p,p-DDT	50-29-3	0.0059 U	0.0059	0.024		1
00177	Delta BHC	319-86-8	0.0034 U	0.0034	0.012		1
00177	Dieldrin	60-57-1	0.0063 U	0.0063	0.024		1
00177	Endosulfan I	959-98-8	0.0051 U	0.0051	0.012		1
00177	Endosulfan II	33213-65-9	0.018 U	0.018	0.024		1
00177	Endosulfan Sulfate	1031-07-8	0.0069 U	0.0069	0.024		1
00177	Endrin	72-20-8	0.0096 U	0.0096	0.024		1
00177	Endrin Aldehyde	7421-93-4	0.024 U	0.024	0.12		1
00177	Endrin Ketone	53494-70-5	0.0059 U	0.0059	0.024		1
00177	Heptachlor	76-44-8	0.0031 U	0.0031	0.012		1
00177	Heptachlor Epoxide	1024-57-3	0.0027 U	0.0027	0.012		1
00177	Methoxychlor	72-43-5	0.035 U	0.035	0.12		1
00177	Mirex	2385-85-5	0.10 U	0.10	0.30		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Pesticides/PCBs		SW-846 8081A	ug/l		ug/l	ug/l	ug/l	
00177	Toxaphene	8001-35-2	1.2	U	1.2	3.5		1
Pesticides/PCBs		SW-846 8082	ug/l		ug/l	ug/l	ug/l	
10227	Aroclor 5432	63496-31-1	0.12	U	0.12	0.59		1
10227	Aroclor 5442	12642-23-8	0.12	U	0.12	0.59		1
10227	Aroclor 5460	11126-42-4	0.12	U	0.12	0.59		1
10227	PCB-1016	12674-11-2	0.12	U	0.12	0.59		1
10227	PCB-1221	11104-28-2	0.12	U	0.12	0.59		1
10227	PCB-1232	11141-16-5	0.24	U	0.24	0.59		1
10227	PCB-1242	53469-21-9	0.12	U	0.12	0.59		1
10227	PCB-1248	12672-29-6	0.12	U	0.12	0.59		1
10227	PCB-1254	11097-69-1	0.12	U	0.12	0.59		1
10227	PCB-1260	11096-82-5	0.18	U	0.18	0.59		1
10227	PCB-1262	37324-23-5	0.24	U	0.24	0.59		1
10227	PCB-1268	11100-14-4	0.19	U	0.19	0.59		1
GC Miscellaneous		SW-846 8015B	ug/l		ug/l	ug/l	ug/l	
06624	Ethanol	64-17-5	200	U	200	1,000		1
06624	Isopropanol	67-63-0	200	U	200	1,000		1
06624	Methanol	67-56-1	200	U	200	1,000		1
GC Miscellaneous		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
08278	Diethylene glycol	111-46-6	10	U	10	100		1
08278	Ethylene glycol	107-21-1	10	U	10	100		1
08278	Propylene glycol	57-55-6	10	U	10	100		1
GC Petroleum Hydrocarbons		SW-846 8015B	mg/l		mg/l	mg/l	mg/l	
10319	m-Terphenyl	92-06-8	0.076	U	0.076	0.24		1
10319	o-Terphenyl	84-15-1	0.076	U	0.076	0.24		1
10319	p-Terphenyl	92-94-4	0.076	U	0.076	0.24		1
GC Petroleum Hydrocarbons		SW-846 8015B modified	mg/l		mg/l	mg/l	mg/l	
10365	EFH (C12-C14)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C15-C20)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C21-C30)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C30 - C40)	n.a.	0.11	U	0.11	0.68		1
10365	EFH (C8-C11)	n.a.	0.11	U	0.11	0.68		1
Metals		SW-846 6010B	mg/l		mg/l	mg/l	mg/l	
01743	Aluminum	7429-90-5	0.0801	U	0.0801	0.200		1
08014	Boron	7440-42-8	0.0043	J	0.0022	0.0500		1
01750	Calcium	7440-70-2	0.0705	U	0.0705	0.200		1
01754	Iron	7439-89-6	0.0141	U	0.0141	0.200		1
01756	Lithium	7439-93-2	0.0076	U	0.0076	0.0200		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Action Limit	Dilution Factor
Metals		SW-846 6010B	mg/l	mg/l	mg/l	mg/l	
01757	Magnesium	7439-95-4	0.0067 U	0.0067	0.100		1
07058	Manganese	7439-96-5	0.00044 U	0.00044	0.0050		1
10143	Phosphorus	7723-14-0	0.0047 U	0.0047	0.100		1
01762	Potassium	7440-09-7	0.0874 U	0.0874	0.500		1
01767	Sodium	7440-23-5	0.0647 U	0.0647	1.00		1
08068	Strontium	7440-24-6	0.00045 J	0.00022	0.0050		1
07069	Tin	7440-31-5	0.0043 U	0.0043	0.0200		1
07070	Titanium	7440-32-6	0.00046 J	0.00046	0.0100		1
10144	Zirconium	7440-67-7	0.0042 U	0.0042	0.0500		1
		SW-846 6020	mg/l	mg/l	mg/l	mg/l	
06024	Antimony	7440-36-0	0.00042 U	0.00042	0.0010		1
06025	Arsenic	7440-38-2	0.00095 U	0.00095	0.0020		1
06026	Barium	7440-39-3	0.00069 U	0.00069	0.0020		1
06027	Beryllium	7440-41-7	0.00013 U	0.00013	0.00050		1
06028	Cadmium	7440-43-9	0.00020 U	0.00020	0.00050		1
06031	Chromium	7440-47-3	0.00060 U	0.00060	0.0020		1
06032	Cobalt	7440-48-4	0.00010 U	0.00010	0.00050		1
06033	Copper	7440-50-8	0.00050 J	0.00038	0.0020		1
06035	Lead	7439-92-1	0.000080 U	0.000080	0.0010		1
06038	Molybdenum	7439-98-7	0.00035 J	0.00025	0.00050		1
06039	Nickel	7440-02-0	0.00050 U	0.00050	0.0020		1
06041	Selenium	7782-49-2	0.00027 U	0.00027	0.0020		1
06042	Silver	7440-22-4	0.000098 U	0.000098	0.00050		1
06045	Thallium	7440-28-0	0.00015 U	0.00015	0.00050		1
06048	Vanadium	7440-62-2	0.00018 U	0.00018	0.00050		1
06049	Zinc	7440-66-6	0.0040 U	0.0040	0.0150		1
		SW-846 7470A	mg/l	mg/l	mg/l	mg/l	
00259	Mercury	7439-97-6	0.000026 U	0.000026	0.00020		1
Wet Chemistry		EPA 300.0	mg/l	mg/l	mg/l	mg/l	
01504	11b Anions by 300.0 - Fluoride	16984-48-8	0.080 U	0.080	0.10		1
00368	11b Anions by 300.0 - Nitrate	14797-55-8	0.050 U	0.050	0.10		1
		EPA 314.0	ug/l	ug/l	ug/l	ug/l	
06019	7b Perchlorate EPA 314.0	14797-73-0	0.70 U	0.70	2.0		1
		SW-846 7199	ug/l	ug/l	ug/l	ug/l	
06467	3b Cr VI by EPA 7199	18540-29-9	5.0 U	5.0	10.0		1
		SW-846 9012B	mg/l	mg/l	mg/l	mg/l	
08255	16b Cyanide by 9012B	57-12-5	0.0050 U	0.0050	0.010		1
		SW-846 9040B	Std. Units	Std. Units	Std. Units	Std. Units	
00200	17b pH by 9040B	n.a.	5.8	0.010	0.010		1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 8 of 9

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10904	1b Volatile Organics EPA8260B	SW-846 8260B	1	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
00527	14b 1,4-Dioxane by 8260B SIM	SW-846 8260B SIM	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	E113391AA	12/05/2011 12:51	Jason M Long	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	Y113402AA	12/06/2011 17:51	Chelsea B Eastep	1
10962	21b NDMA by 1625C	EPA 1625C	1	11340WAA026	12/09/2011 12:52	Matthew S Woods	1
04678	5b SVOCs with Tetralin 8270C	SW-846 8270C	1	11340WAC026	12/12/2011 08:45	Brian K Graham	1
10137	4b Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11340WAG026	12/16/2011 16:42	Dale R Stoneroad	1
00813	BNA Water Extraction	SW-846 3510C	1	11340WAC026	12/06/2011 18:45	Nicholas W Shroyer	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	11340WAG026	12/07/2011 08:40	Catherine R Wiker	1
11629	NDMA Liquid/Liquid Extraction	SW-846 3520C	1	11340WAA026	12/06/2011 14:25	Wanda F Oswald	1
08229	9b TPH by EPA 8015B Gas C5-C12	TPH GRO SW-8015B	1	11340A20A	12/07/2011 04:39	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	11340A20A	12/07/2011 04:39	Marie D John	1
10131	15b Energetics by 8330A	SW-846 8330A	1	113400003A	12/13/2011 01:19	James H Place	1
04144	20b Formaldehyde 8315A	SW-846 8315A	1	113370002A	12/05/2011 19:27	James H Place	1
10407	13b Herbicides by EPA 8151	SW-846 8151A	1	113370019A	12/06/2011 22:33	John W Perkins	1
00177	12b Pesticides by 8081A	SW-846 8081A	1	113400050A	12/09/2011 19:27	Lisa A Reinert	1
10227	8b PCBs/PCTs by 8082	SW-846 8082	1	113400049A	12/12/2011 05:27	Jessica L Miller	1
11117	PCB Waters Extraction	SW-846 3510C	1	113400049A	12/07/2011 13:00	Kelli M Barto	1
11118	Pesticide Screen Waters Ext	SW-846 3510C	1	113400050A	12/07/2011 13:00	Kelli M Barto	1
00816	Water Sample Herbicide Extract	SW-846 8151A	1	113370019A	12/05/2011 08:30	Kerrie A Freeburn	1
01013	Formaldehyde Extraction	SW-846 8315A	1	113370002A	12/03/2011 08:40	Kelli M Barto	1
11122	Energetics Extraction	SW-846 8330	1	113400003A	12/06/2011 16:20	Kelli M Barto	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/06/2011 20:52	Elizabeth J Marin	1
06624	18b Alcohols by 8015B	SW-846 8015B	1	113390042A	12/07/2011 18:37	Elizabeth J Marin	1
08278	19b Glycols by 8015B	SW-846 8015B modified	1	113400056A	12/07/2011 04:14	Tyler O Griffin	1
10319	22b Terphenyls by 8015B	SW-846 8015B	1	113400019A	12/07/2011 13:55	Robert Brown	1
10365	9b TPH by EPA 8015B Oil/Diesel	SW-846 8015B modified	1	113390010A	12/08/2011 05:20	Heather E Williams	1
11203	EFH Waters Extraction	SW-846 3510C	1	113390010A	12/05/2011 17:52	Bronson L Cole	1
10304	Terphenyls water prep	SW-846 3510C	1	113400019A	12/06/2011 22:00	Elaine F Stoltzfus	1
01743	Aluminum	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08014	Boron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487693
LLI Group # 1279187
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/29/2011 13:53

E9106 SDG#: DE291-06EB*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01750	Calcium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01754	Iron	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01756	Lithium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01757	Magnesium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07058	Manganese	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10143	Phosphorus	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01762	Potassium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
01767	Sodium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
08068	Strontium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07069	Tin	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
07070	Titanium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
10144	Zirconium	SW-846 6010B	1	113411848003	12/09/2011 19:57	John P Hook	1
06024	Antimony	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06025	Arsenic	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06026	Barium	SW-846 6020	1	113416050004D	12/10/2011 07:36	Choon Y Tian	1
06027	Beryllium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06028	Cadmium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06031	Chromium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06032	Cobalt	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06033	Copper	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06035	Lead	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06038	Molybdenum	SW-846 6020	1	113416050004C	12/10/2011 07:36	Choon Y Tian	1
06039	Nickel	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06041	Selenium	SW-846 6020	1	113416050004B	12/10/2011 07:36	Choon Y Tian	1
06042	Silver	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06045	Thallium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06048	Vanadium	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
06049	Zinc	SW-846 6020	1	113416050004A	12/10/2011 07:36	Choon Y Tian	1
00259	Mercury	SW-846 7470A	1	113405713003	12/09/2011 07:15	Damary Valentin	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	113411848003	12/09/2011 09:22	Denise K Conners	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	113416050004	12/09/2011 09:19	Denise K Conners	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	113405713003	12/08/2011 15:23	Nelli S Markaryan	1
01504	11b Anions by 300.0 - Fluoride	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
00368	11b Anions by 300.0 - Nitrate	EPA 300.0	1	11337373601A	12/03/2011 12:49	Ashley M Adams	1
06019	7b Perchlorate EPA 314.0	EPA 314.0	1	11336281101A	12/02/2011 12:50	Elyse P Brunstetter	1
06467	3b Cr VI by EPA 7199	SW-846 7199	1	11335495401B	12/02/2011 11:17	Elyse P Brunstetter	1
08255	16b Cyanide by 9012B	SW-846 9012B	1	11341117101B	12/07/2011 17:40	Venia B McFadden	1
08256	Cyanide Water Distillation	SW-846 9012B	1	11341117101B	12/07/2011 09:40	Nancy J Shoop	1
00200	17b pH by 9040B	SW-846 9040B	1	11341020003A	12/07/2011 19:00	Luz M Groff	1

*=This limit was used in the evaluation of the final result

Shaded result = The results or reporting limit exceeded the client-provided action limit.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: E113391AA	Sample number(s): 6487693								
1,4-Dioxane	0.5 U	0.5	2.0	ug/l	101	107	80-123	6	30
Batch number: Y113402AA	Sample number(s): 6487693								
Acetone	6 U	6.	20	ug/l	101	101	49-234	1	30
Benzene	0.5 U	0.5	5	ug/l	102	99	79-120	3	30
Bromobenzene	1 U	1.	5	ug/l	107	107	80-120	0	30
Bromochloromethane	1 U	1.	5	ug/l	99	96	80-120	3	30
Bromodichloromethane	1 U	1.	5	ug/l	93	91	80-120	2	30
Bromoform	1 U	1.	5	ug/l	94	92	61-120	2	30
Bromomethane	1 U	1.	5	ug/l	77	76	44-120	2	30
2-Butanone	3 U	3.	10	ug/l	97	99	66-151	1	30
n-Butylbenzene	1 U	1.	5	ug/l	111	107	74-120	3	30
sec-Butylbenzene	1 U	1.	5	ug/l	115	112	78-120	3	30
tert-Butylbenzene	1 U	1.	5	ug/l	100	97	80-120	3	30
Carbon Tetrachloride	1 U	1.	5	ug/l	94	90	75-123	4	30
Chlorobenzene	0.8 U	0.8	5	ug/l	100	98	80-120	3	30
Chloroethane	1 U	1.	5	ug/l	81	77	49-129	5	30
2-Chloroethyl Vinyl Ether	2 U	2.	10	ug/l	96	94	56-129	2	30
Chloroform	0.8 U	0.8	5	ug/l	100	98	77-122	2	30
Chloromethane	1 U	1.	5	ug/l	101	91	60-129	10	30
2-Chlorotoluene	1 U	1.	5	ug/l	108	107	80-120	2	30
4-Chlorotoluene	1 U	1.	5	ug/l	105	101	80-120	3	30
Chlorotrifluoroethene	2 U	2.	5	ug/l	85	91	38-136	8	30
1,2-Dibromo-3-chloropropane	2 U	2.	5	ug/l	100	100	56-126	0	30
Dibromochloromethane	1 U	1.	5	ug/l	99	97	80-120	2	30
1,2-Dibromoethane	1 U	1.	5	ug/l	100	99	80-120	1	30
Dibromomethane	1 U	1.	5	ug/l	96	95	80-120	1	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	103	102	80-120	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	107	105	80-120	2	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	105	104	80-120	2	30
Dichlorodifluoromethane	2 U	2.	5	ug/l	92	88	47-120	5	30
1,1-Dichloroethane	1 U	1.	5	ug/l	99	96	79-120	4	30
1,2-Dichloroethane	1 U	1.	5	ug/l	92	91	70-130	1	30
1,1-Dichloroethene	0.8 U	0.8	5	ug/l	95	88	74-123	8	30
cis-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	101	99	80-120	2	30
trans-1,2-Dichloroethene	0.8 U	0.8	5	ug/l	98	97	80-120	2	30
1,2-Dichloropropane	1 U	1.	5	ug/l	101	98	78-120	4	30
1,3-Dichloropropane	1 U	1.	5	ug/l	100	100	80-120	1	30
2,2-Dichloropropane	1 U	1.	5	ug/l	91	88	77-124	4	30
1,1-Dichloropropene	1 U	1.	5	ug/l	99	96	80-120	3	30
cis-1,3-Dichloropropene	1 U	1.	5	ug/l	96	94	80-120	2	30
trans-1,3-Dichloropropene	1 U	1.	5	ug/l	95	95	79-120	0	30
Ethylbenzene	0.8 U	0.8	5	ug/l	101	99	79-120	2	30
Freon 113	2 U	2.	10	ug/l	99	92	69-128	7	30
Freon 133a	2 U	2.	5	ug/l	88	93	77-120	6	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Hexachlorobutadiene	2 U	2.	5	ug/l	101	99	58-120	2	30
2-Hexanone	3 U	3.	10	ug/l	98	98	65-136	0	30
Isopropylbenzene	1 U	1.	5	ug/l	101	98	77-120	3	30
p-Isopropyltoluene	1 U	1.	5	ug/l	109	107	80-120	2	30
Methyl Tertiary Butyl Ether	0.5 U	0.5	5	ug/l	99	100	76-120	1	30
4-Methyl-2-pentanone	3 U	3.	10	ug/l	97	97	70-121	1	30
Methylene Chloride	2 U	2.	5	ug/l	107	109	80-120	2	30
n-Propylbenzene	1 U	1.	5	ug/l	117	113	80-120	3	30
Styrene	1 U	1.	5	ug/l	95	91	80-120	4	30
1,1,1,2-Tetrachloroethane	1 U	1.	5	ug/l	95	94	80-120	1	30
1,1,2,2-Tetrachloroethane	1 U	1.	5	ug/l	112	113	71-120	0	30
Tetrachloroethene	0.8 U	0.8	5	ug/l	96	94	80-121	3	30
Toluene	0.7 U	0.7	5	ug/l	104	102	79-120	2	30
1,2,3-Trichlorobenzene	1 U	1.	5	ug/l	102	102	65-120	0	30
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	102	102	67-120	1	30
1,1,1-Trichloroethane	0.8 U	0.8	5	ug/l	96	93	75-127	4	30
1,1,2-Trichloroethane	0.8 U	0.8	5	ug/l	102	101	80-120	1	30
Trichloroethene	1 U	1.	5	ug/l	98	95	80-120	4	30
Trichlorofluoromethane	2 U	2.	5	ug/l	87	84	64-129	4	30
1,2,3-Trichloropropane	1 U	1.	5	ug/l	108	106	80-120	1	30
1,2,4-Trimethylbenzene	1 U	1.	5	ug/l	111	110	74-120	1	30
1,3,5-Trimethylbenzene	1 U	1.	5	ug/l	109	106	75-120	2	30
Vinyl Chloride	1 U	1.	5	ug/l	92	88	65-125	5	30
m+p-Xylene	0.8 U	0.8	5	ug/l	98	95	80-120	3	30
o-Xylene	0.8 U	0.8	5	ug/l	97	94	80-120	3	30
Batch number: 11337SLC026 Sample number(s): 6487688-6487692									
Acenaphthene	17 U	17.	170	ug/kg	91		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	103		75-122		
Aniline	170 U	170.	500	ug/kg	60		20-115		
Anthracene	17 U	17.	170	ug/kg	96		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	35		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	97		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	99		65-124		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	96		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	95		60-125		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	103		67-125		
Benzoic acid	170 U	170.	500	ug/kg	94		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	93		73-114		
Butylbenzylphthalate	17 U	17.	170	ug/kg	101		75-115		
Di-n-butylphthalate	17 U	17.	170	ug/kg	103		79-112		
Carbazole	17 U	17.	170	ug/kg	98		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	90		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	31		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	90		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	91		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	87		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	100		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	93		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	91		74-115		
Chrysene	17 U	17.	170	ug/kg	96		76-113		
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	96		61-126		
Dibenzofuran	17 U	17.	170	ug/kg	91		74-116		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>		<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
1,2-Dichlorobenzene	17	U	17.	170	ug/kg	88		74-99		
1,3-Dichlorobenzene	17	U	17.	170	ug/kg	87		70-98		
1,4-Dichlorobenzene	17	U	17.	170	ug/kg	87		74-106		
3,3'-Dichlorobenzidine	100		100.	330	ug/kg	50		10-116		
	U									
2,4-Dichlorophenol	17	U	17.	170	ug/kg	95		75-111		
Diethylphthalate	17	U	17.	170	ug/kg	96		76-111		
2,4-Dimethylphenol	33	U	33.	170	ug/kg	95		72-111		
3,5-Dimethylphenol	33	U	33.	170	ug/kg	99		83-120		
Dimethylphthalate	17	U	17.	170	ug/kg	95		77-109		
4,6-Dinitro-2-methylphenol	170		170.	500	ug/kg	88		46-120		
	U									
2,4-Dinitrophenol	330		330.	1,000	ug/kg	78		18-133		
	U									
2,4-Dinitrotoluene	33	U	33.	170	ug/kg	96		73-115		
2,6-Dinitrotoluene	17	U	17.	170	ug/kg	96		79-115		
1,2-Diphenylhydrazine	17	U	17.	170	ug/kg	95		71-125		
bis(2-Ethylhexyl)phthalate	17	U	17.	330	ug/kg	100		75-117		
Fluoranthene	17	U	17.	170	ug/kg	103		78-116		
Fluorene	17	U	17.	170	ug/kg	97		75-116		
Hexachlorobenzene	17	U	17.	170	ug/kg	93		73-119		
Hexachlorobutadiene	67	U	67.	170	ug/kg	88		65-117		
Hexachlorocyclopentadiene	170		170.	500	ug/kg	87		46-115		
	U									
Hexachloroethane	17	U	17.	170	ug/kg	86		61-109		
Indeno(1,2,3-cd)pyrene	17	U	17.	170	ug/kg	92		64-119		
Isophorone	17	U	17.	170	ug/kg	91		69-110		
1-Methylnaphthalene	17	U	17.	170	ug/kg	86		74-105		
2-Methylnaphthalene	17	U	17.	170	ug/kg	90		69-109		
2-Methylphenol	33	U	33.	170	ug/kg	91		66-110		
4-Methylphenol	33	U	33.	170	ug/kg	84		66-117		
Naphthalene	17	U	17.	170	ug/kg	93		73-106		
2-Nitroaniline	17	U	17.	170	ug/kg	96		78-116		
3-Nitroaniline	33	U	33.	170	ug/kg	83		62-109		
4-Nitroaniline	67	U	67.	170	ug/kg	60		49-98		
Nitrobenzene	17	U	17.	170	ug/kg	93		66-119		
2-Nitrophenol	17	U	17.	170	ug/kg	94		76-111		
4-Nitrophenol	170		170.	500	ug/kg	87		56-118		
	U									
N-Nitroso-di-n-propylamine	17	U	17.	170	ug/kg	81		63-107		
N-Nitrosodimethylamine	33	U	33.	170	ug/kg	84		60-106		
N-Nitrosodiphenylamine	17	U	17.	170	ug/kg	98		67-141		
Di-n-octylphthalate	17	U	17.	170	ug/kg	104		62-137		
Pentachlorophenol	170		170.	500	ug/kg	90		51-117		
	U									
Phenanthrene	17	U	17.	170	ug/kg	97		77-113		
Phenol	17	U	17.	170	ug/kg	89		58-112		
Pyrene	17	U	17.	170	ug/kg	97		75-115		
Tetralin	170		170.	170	ug/kg					
	U									
1,2,4-Trichlorobenzene	17	U	17.	170	ug/kg	92		73-108		
2,4,5-Trichlorophenol	33	U	33.	170	ug/kg	98		76-107		
2,4,6-Trichlorophenol	33	U	33.	170	ug/kg	97		78-111		
Batch number: 11339SLD026 Sample number(s): 6487689-6487692										
Acenaphthene	0.67	U	0.67	1.7	ug/kg	107		63-120		
Acenaphthylene	0.33	U	0.33	1.7	ug/kg	110		60-120		
Anthracene	0.33	U	0.33	1.7	ug/kg	106		73-113		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	104		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	107		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	109		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	114		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	109		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	118		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	107		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	113		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	110		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	113		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	110		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	111		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	100		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	113		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	102		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	100		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	102		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	96		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	113		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	104		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	106		72-119		

Batch number: 11340WAA026 Sample number(s): 6487693
N-Nitrosodimethylamine 0.500 U 0.500 1.00 ng/l 77 63* 70-130 20 30

Batch number: 11340WAC026	Sample number(s): 6487693								
Aniline	1 U	1.	5	ug/l	83	77	38-116	7	30
Benztidine	20 U	20.	60	ug/l	79	70	34-117	13	30
Benzoic acid	6 U	6.	15	ug/l	38	34	10-69	11	30
Benzyl alcohol	5 U	5.	15	ug/l	80	74	66-97	7	30
4-Bromophenyl-phenylether	1 U	1.	5	ug/l	95	96	75-115	1	30
Carbazole	1 U	1.	5	ug/l	97	97	75-120	0	30
4-Chloro-3-methylphenol	1 U	1.	5	ug/l	84	85	70-123	1	30
4-Chloroaniline	1 U	1.	5	ug/l	81	76	24-128	6	30
bis(2-Chloroethoxy)methane	1 U	1.	5	ug/l	91	93	74-124	2	30
bis(2-Chloroethyl)ether	1 U	1.	5	ug/l	95	91	77-108	4	30
bis(2-Chloroisopropyl)ether	1 U	1.	5	ug/l	88	88	62-127	1	30
2-Chloronaphthalene	2 U	2.	5	ug/l	75	77	54-132	3	30
2-Chlorophenol	1 U	1.	5	ug/l	86	85	71-114	2	30
4-Chlorophenyl-phenylether	2 U	2.	5	ug/l	93	93	77-114	1	30
Dibenzofuran	1 U	1.	5	ug/l	91	90	75-117	1	30
1,2-Dichlorobenzene	1 U	1.	5	ug/l	85	84	55-118	1	30
1,3-Dichlorobenzene	1 U	1.	5	ug/l	84	83	61-111	1	30
1,4-Dichlorobenzene	1 U	1.	5	ug/l	83	81	53-119	3	30
3,3'-Dichlorobenzidine	2 U	2.	5	ug/l	73	65	37-117	11	30
2,4-Dichlorophenol	1 U	1.	5	ug/l	91	92	77-117	2	30
2,4-Dimethylphenol	3 U	3.	10	ug/l	90	87	72-110	3	30
3,5-Dimethylphenol	3 U	3.	10	ug/l	91	90	70-130	2	30
4,6-Dinitro-2-methylphenol	5 U	5.	15	ug/l	100	102	65-126	2	30
2,4-Dinitrophenol	10 U	10.	30	ug/l	87	88	52-131	0	30
2,4-Dinitrotoluene	1 U	1.	5	ug/l	94	94	76-119	1	30
2,6-Dinitrotoluene	1 U	1.	5	ug/l	96	97	76-118	1	30
1,2-Diphenylhydrazine	1 U	1.	5	ug/l	96	96	68-127	0	30
Hexachlorobenzene	1 U	1.	5	ug/l	97	97	75-119	1	30
Hexachlorobutadiene	1 U	1.	5	ug/l	84	86	57-124	2	30
Hexachlorocyclopentadiene	5 U	5.	15	ug/l	77	74	36-118	4	30
Hexachloroethane	1 U	1.	5	ug/l	81	79	52-113	2	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Isophorone	1 U	1.	5	ug/l	92	94	74-117	2	30
2-Methylphenol	1 U	1.	5	ug/l	79	73	58-110	7	30
4-Methylphenol	2 U	2.	5	ug/l	69	65	49-108	6	30
2-Nitroaniline	1 U	1.	5	ug/l	96	96	75-120	0	30
3-Nitroaniline	1 U	1.	5	ug/l	93	91	74-113	2	30
4-Nitroaniline	1 U	1.	5	ug/l	71	66	59-100	7	30
Nitrobenzene	1 U	1.	5	ug/l	90	94	75-109	4	30
2-Nitrophenol	1 U	1.	5	ug/l	93	94	76-118	1	30
4-Nitrophenol	10 U	10.	30	ug/l	35	33	16-78	9	30
N-Nitroso-di-n-propylamine	1 U	1.	5	ug/l	85	85	69-110	0	30
N-Nitrosodiphenylamine	2 U	2.	5	ug/l	95	98	67-136	2	30
Pentachlorophenol	3 U	3.	15	ug/l	97	97	53-110	0	30
Phenol	1 U	1.	5	ug/l	42	37	21-67	12	30
Tetralin	5 U	5.	5	ug/l					
1,2,4-Trichlorobenzene	1 U	1.	5	ug/l	88	90	71-112	2	30
2,4,5-Trichlorophenol	1 U	1.	5	ug/l	95	94	79-107	1	30
2,4,6-Trichlorophenol	1 U	1.	5	ug/l	95	94	76-120	1	30

Batch number: 11340WAG026

Sample number(s): 6487693

Acenaphthene	0.010 U	0.010	0.050	ug/l	100	98	74-109	2	30
Acenaphthylene	0.010 U	0.010	0.050	ug/l	104	99	70-110	5	30
Anthracene	0.010 U	0.010	0.050	ug/l	103	101	66-111	1	30
Benzo(a)anthracene	0.010 U	0.010	0.050	ug/l	97	98	72-114	1	30
Benzo(a)pyrene	0.010 U	0.010	0.050	ug/l	99	98	60-127	0	30
Benzo(b)fluoranthene	0.010 U	0.010	0.050	ug/l	108	106	58-151	2	30
Benzo(g,h,i)perylene	0.010 U	0.010	0.050	ug/l	98	95	57-131	3	30
Benzo(k)fluoranthene	0.010 U	0.010	0.050	ug/l	103	103	59-130	0	30
Butylbenzylphthalate	0.050 U	0.050	1.0	ug/l	95	95	40-138	0	30
Di-n-butylphthalate	0.050 U	0.050	1.0	ug/l	113	108	56-148	4	30
Chrysene	0.010 U	0.010	0.050	ug/l	99	94	76-116	5	30
Dibenz(a,h)anthracene	0.010 U	0.010	0.050	ug/l	100	97	55-134	3	30
Diethylphthalate	0.050 U	0.050	1.0	ug/l	111	107	37-148	4	30
Dimethylphthalate	0.050 U	0.050	1.0	ug/l	105	100	40-119	5	30
Bis(2-Ethylhexyl)phthalate	0.050 U	0.050	1.0	ug/l	101	101	57-154	1	30
Fluoranthene	0.010 U	0.010	0.050	ug/l	100	95	75-116	5	30
Fluorene	0.010 U	0.010	0.050	ug/l	112	95	75-114	16	30
Indeno(1,2,3-cd)pyrene	0.010 U	0.010	0.050	ug/l	99	97	53-158	2	30
1-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	97	93	71-117	4	30
2-Methylnaphthalene	0.010 U	0.010	0.050	ug/l	93	93	75-115	0	30
Naphthalene	0.030 U	0.030	0.050	ug/l	98	97	72-109	1	30
N-Nitrosodimethylamine	0.010 U	0.010	0.050	ug/l	66	63	36-89	4	30
Di-n-octylphthalate	0.050 U	0.050	1.0	ug/l	99	100	57-145	1	30
Phenanthrene	0.030 U	0.030	0.050	ug/l	99	97	76-111	2	30
Pyrene	0.010 U	0.010	0.050	ug/l	99	95	69-118	4	30

Batch number: 11340A20A
TPH-GRO S.CA water C5-C12

Sample number(s): 6487693
20 U 20. 50

4-Amino-2,6-Dinitrotoluene	0.30 U	0.30	0.60	ug/l	110	110	80-120	0	30
2-Amino-4,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	98	100	80-120	2	30
2,6-Diamino-4-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	97	50-122	4	30
2,4-Diamino-6-nitrotoluene	0.20 U	0.20	0.60	ug/l	93	97	50-122	4	30
1,3-Dinitrobenzene	0.20 U	0.20	0.60	ug/l	100	110	72-117	10	30
2,4-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	95	97	80-120	2	30
2,6-Dinitrotoluene	0.20 U	0.20	0.60	ug/l	100	110	80-120	10	30
HMX	0.65 U	0.65	2.0	ug/l	96	98	65-125	2	30
Nitrobenzene	0.20 U	0.20	0.60	ug/l	88	92	75-121	4	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Nitroglycerin	5.2 U	5.2	15	ug/l	96	100	80-120	4	30
2-Nitrotoluene	0.20 U	0.20	0.60	ug/l	92	94	74-120	2	30
3-Nitrotoluene	0.40 U	0.40	1.2	ug/l	97	99	69-107	2	30
4-Nitrotoluene	0.60 U	0.60	1.2	ug/l	91	92	80-120	1	30
PETN	6.0 U	6.0	18	ug/l	104	104	80-120	0	30
RDX	0.20 U	0.20	0.60	ug/l	95	98	70-125	3	30
Tetryl	0.40 U	0.40	0.60	ug/l	89	89	31-148	0	30
1,3,5-Trinitrobenzene	0.20 U	0.20	0.60	ug/l	81	88	53-129	8	30
2,4,6-Trinitrotoluene	0.20 U	0.20	0.60	ug/l	100	100	76-109	0	30
Batch number: 113370002A									
20b Formaldehyde 8315A	Sample number(s): 6487693								
	10 U	10.	50	ug/l	104	106	69-130	2	30
Batch number: 113370019A									
2,4-D	Sample number(s): 6487693								
	0.16 U	0.16	0.50	ug/l	96	96	73-157	0	30
Dalapon	0.25 U	0.25	1.3	ug/l	81	84	40-100	4	30
2,4-DB	0.30 U	0.30	1.0	ug/l	96	96	65-130	0	30
Dicamba	0.080 U	0.080	0.30	ug/l	112	116	68-135	4	30
Dinoseb	0.10 U	0.10	0.50	ug/l	88	88	32-91	0	30
2,4-DP (Dichlorprop)	0.16 U	0.16	0.50	ug/l	104	112	76-170	7	30
MCPA	300 U	300.	1,000	ug/l	96	102	65-128	6	30
Batch number: 113400037A									
2,4-D	Sample number(s): 6487688								
	1.2 U	1.2	3.6	ug/kg	92		73-146		
Dalapon	4.4 U	4.4	9.0	ug/kg	30		11-116		
2,4-DB	0.62 U	0.62	1.7	ug/kg	96		62-131		
Dicamba	0.40 U	0.40	1.2	ug/kg	106		54-121		
Dinoseb	0.80 U	0.80	2.4	ug/kg	11		10-36		
2,4-DP (Dichlorprop)	0.80 U	0.80	1.7	ug/kg	102		62-170		
MCPA	76 U	76.	250	ug/kg	102		60-130		
MCPP (Mecoprop)	75 U	75.	250	ug/kg	101		54-137		
2,4,5-T	0.082 U	0.082	0.17	ug/kg	99		73-143		
2,4,5-TP	0.075 U	0.075	0.17	ug/kg	84		68-114		
Batch number: 113390023A									
Aldrin	Sample number(s): 6487688								
	0.066 U	0.066	0.17	ug/kg	73		44-135		
Alpha BHC	0.034 U	0.034	0.17	ug/kg	68		38-130		
Beta BHC	0.060 U	0.060	0.17	ug/kg	78		56-134		
Gamma BHC - Lindane	0.034 U	0.034	0.17	ug/kg	71		46-127		
Chlordane	0.80 U	0.80	3.4	ug/kg					
p,p-DDD	0.066 U	0.066	0.34	ug/kg	84		60-137		
p,p-DDE	0.066 U	0.066	0.34	ug/kg	82		59-141		
p,p-DDT	0.066 U	0.066	0.34	ug/kg	69		54-130		
Delta BHC	0.036 U	0.036	0.17	ug/kg	81		55-144		
Dieldrin	0.066 U	0.066	0.34	ug/kg	78		65-129		
Endosulfan I	0.044 U	0.044	0.17	ug/kg	71		45-123		
Endosulfan II	0.066 U	0.066	0.34	ug/kg	80		63-127		
Endosulfan Sulfate	0.066 U	0.066	0.34	ug/kg	85		72-138		
Endrin	0.066 U	0.066	0.34	ug/kg	76		62-129		
Endrin Aldehyde	0.066 U	0.066	0.34	ug/kg	68		55-132		
Endrin Ketone	0.066 U	0.066	0.34	ug/kg	85		69-139		
Heptachlor	0.060 U	0.060	0.17	ug/kg	74		43-124		
Heptachlor Epoxide	0.034 U	0.034	0.17	ug/kg	79		65-131		
Methoxychlor	0.34 U	0.34	1.7	ug/kg	78		59-125		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Mirex	0.066 U	0.066	0.34	ug/kg					
Toxaphene	2.2 U	2.2	6.6	ug/kg					
Batch number: 113400026A Sample number(s): 6487688-6487692									
Aroclor 5432	1.0 U	1.0	3.3	ug/kg					
Aroclor 5442	1.0 U	1.0	3.3	ug/kg	73	76	36-106	4	30
Aroclor 5460	1.0 U	1.0	3.3	ug/kg					
PCB-1016	0.33 U	0.33	1.7	ug/kg	77		72-120		
PCB-1221	0.33 U	0.33	1.7	ug/kg					
PCB-1232	0.33 U	0.33	1.7	ug/kg					
PCB-1242	0.33 U	0.33	1.7	ug/kg					
PCB-1248	0.33 U	0.33	1.7	ug/kg					
PCB-1254	0.33 U	0.33	1.7	ug/kg					
PCB-1260	0.39 U	0.39	1.7	ug/kg	99		65-137		
PCB-1262	0.33 U	0.33	1.7	ug/kg					
PCB-1268	0.33 U	0.33	1.7	ug/kg					
Batch number: 113400049A Sample number(s): 6487693									
Aroclor 5432	0.10 U	0.10	0.50	ug/l					
Aroclor 5442	0.10 U	0.10	0.50	ug/l	76	78	35-84	3	30
Aroclor 5460	0.10 U	0.10	0.50	ug/l					
PCB-1016	0.10 U	0.10	0.50	ug/l	84	82	51-128	2	30
PCB-1221	0.10 U	0.10	0.50	ug/l					
PCB-1232	0.20 U	0.20	0.50	ug/l					
PCB-1242	0.10 U	0.10	0.50	ug/l					
PCB-1248	0.10 U	0.10	0.50	ug/l					
PCB-1254	0.10 U	0.10	0.50	ug/l					
PCB-1260	0.15 U	0.15	0.50	ug/l	98	92	56-135	6	30
PCB-1262	0.20 U	0.20	0.50	ug/l					
PCB-1268	0.16 U	0.16	0.50	ug/l					
Batch number: 113400050A Sample number(s): 6487693									
Aldrin	0.0020 U	0.0020	0.010	ug/l	101	111	54-159	10	30
Alpha BHC	0.0030 U	0.0030	0.010	ug/l	100	110	59-146	10	30
Beta BHC	0.0029 U	0.0029	0.010	ug/l	103	113	73-147	10	30
Gamma BHC - Lindane	0.0020 U	0.0020	0.010	ug/l	100	100	68-128	0	30
Chlordane	0.12 U	0.12	0.50	ug/l					
p,p-DDD	0.0050 U	0.0050	0.020	ug/l	125	125	71-139	0	30
p,p-DDE	0.0050 U	0.0050	0.020	ug/l	111	116	66-130	5	30
p,p-DDT	0.0050 U	0.0050	0.020	ug/l	95	100	53-126	5	30
Delta BHC	0.0029 U	0.0029	0.010	ug/l	113	124	76-148	9	30
Dieldrin	0.0053 U	0.0053	0.020	ug/l	115	115	76-132	0	30
Endosulfan I	0.0043 U	0.0043	0.010	ug/l	91	93	68-128	2	30
Endosulfan II	0.015 U	0.015	0.020	ug/l	100	105	59-144	5	30
Endosulfan Sulfate	0.0058 U	0.0058	0.020	ug/l	125	130	71-142	4	30
Endrin	0.0081 U	0.0081	0.020	ug/l	90	90	52-132	0	30
Endrin Aldehyde	0.020 U	0.020	0.10	ug/l	115	115	68-139	0	20
Endrin Ketone	0.0050 U	0.0050	0.020	ug/l	125	125	69-146	0	30
Heptachlor	0.0026 U	0.0026	0.010	ug/l	100	100	57-126	0	30
Heptachlor Epoxide	0.0023 U	0.0023	0.010	ug/l	112	112	73-156	0	30
Methoxychlor	0.030 U	0.030	0.10	ug/l	110	110	52-133	0	30
Mirex	0.085 U	0.085	0.25	ug/l					
Toxaphene	1.0 U	1.0	3.0	ug/l					
Batch number: 113360017A Sample number(s): 6487688									
Ethanol	100 U	100.	500	ug/kg	93		71-129		
Isopropanol	100 U	100.	500	ug/kg	97		75-125		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Methanol	100 U	100.	500	ug/kg	81		68-129		
Batch number: 113390042A	Sample number(s): 6487693								
Ethanol	200 U	200.	1,000	ug/l	108		78-116		
Isopropanol	200 U	200.	1,000	ug/l	104		75-125		
Methanol	200 U	200.	1,000	ug/l	112		76-122		
Batch number: 113400056A	Sample number(s): 6487693								
Diethylene glycol	10 U	10.	100	mg/l	110		67-126		
Ethylene glycol	10 U	10.	100	mg/l	80		78-136		
Propylene glycol	10 U	10.	100	mg/l	80		65-132		
Batch number: 113420018A	Sample number(s): 6487688								
Diethylene glycol	5.0 U	5.0	10	mg/kg	101		75-125		
Ethylene glycol	5.0 U	5.0	10	mg/kg	107		53-149		
Propylene glycol	5.0 U	5.0	10	mg/kg	99		67-131		
Batch number: 113390010A	Sample number(s): 6487693								
EFH (C12-C14)	0.10 U	0.10	0.60	mg/l	86	76	63-121	12	30
EFH (C15-C20)	0.10 U	0.10	0.60	mg/l	87	77	72-124	11	30
EFH (C21-C30)	0.10 U	0.10	0.60	mg/l	85	72	64-123	17	30
EFH (C30 - C40)	0.10 U	0.10	0.60	mg/l	87	73	73-124	17	30
EFH (C8-C11)	0.10 U	0.10	0.60	mg/l	88	78	43-107	12	30
Batch number: 113390013A	Sample number(s): 6487688								
m-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		64-111		
o-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		75-125		
p-Terphenyl	1.5 U	1.5	3.5	mg/kg	94		69-109		
Batch number: 113400014A	Sample number(s): 6487688								
EFH (C12-C14)	0.40 U	0.40	1.2	mg/kg	81		70-123		
EFH (C15-C20)	0.40 U	0.40	1.2	mg/kg	84		75-128		
EFH (C21-C30)	0.40 U	0.40	1.2	mg/kg	88		64-134		
EFH (C30 - C40)	0.40 U	0.40	1.2	mg/kg	84		65-128		
EFH (C8-C11)	0.40 U	0.40	1.2	mg/kg	65		49-107		
Batch number: 113400019A	Sample number(s): 6487693								
m-Terphenyl	0.080 U	0.080	0.25	mg/l	96	100	61-108	4	20
o-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	75-125	2	20
p-Terphenyl	0.080 U	0.080	0.25	mg/l	96	98	63-110	2	20
Batch number: 113391026002A	Sample number(s): 6487688-6487692								
Antimony	0.0705 U	0.0705	0.190	mg/kg	74		40-227		
Arsenic	0.0762 U	0.0762	0.381	mg/kg	102		83-111		
Beryllium	0.0152 U	0.0152	0.0952	mg/kg	103		84-112		
Cadmium	0.0419 U	0.0419	0.0952	mg/kg	103		83-111		
Chromium	0.114 U	0.114	0.381	mg/kg	115		77-123		
Cobalt	0.0190 U	0.0190	0.0952	mg/kg	107		85-114		
Copper	0.0762 U	0.0762	0.381	mg/kg	104		81-110		
Lead	0.0126 J	0.0097	0.190	mg/kg	101		84-112		
Nickel	0.0952 U	0.0952	0.381	mg/kg	100		81-110		
Silver	0.0135 U	0.0135	0.0952	mg/kg	104		83-112		
Thallium	0.0286 U	0.0286	0.0952	mg/kg	101		82-112		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Vanadium	0.0210 U	0.0210	0.0952	mg/kg	102		76-110		
Zinc	0.838 J	0.533	2.86	mg/kg	101		82-110		
Batch number: 113391026002B	Sample number(s): 6487688-6487692								
Selenium	0.0675 J	0.0552	0.381	mg/kg	96		79-110		
Batch number: 113391026002C	Sample number(s): 6487688-6487692								
Molybdenum	0.0476 U	0.0476	0.0952	mg/kg	100		80-110		
Batch number: 113391026002D	Sample number(s): 6487688-6487692								
Barium	0.101 U	0.101	0.381	mg/kg	102		83-110		
Batch number: 113395708002	Sample number(s): 6487688-6487692								
Aluminum	6.05 U	6.05	20.0	mg/kg	83		40-127		
Boron	0.360 U	0.360	5.00	mg/kg	106		83-110		
Calcium	4.62 J	2.50	20.0	mg/kg	102		81-110		
Iron	4.80 J	2.61	20.0	mg/kg	88		47-129		
Lithium	0.62 U	0.62	2.0	mg/kg	102		80-120		
Magnesium	4.81 J	0.440	10.0	mg/kg	88		63-116		
Manganese	0.0360 U	0.0360	0.500	mg/kg	103		85-116		
Phosphorus	0.983 J	0.350	10.0	mg/kg	104		80-120		
Potassium	11.3 U	11.3	50.0	mg/kg	98		71-110		
Sodium	5.95 U	5.95	100	mg/kg	99		76-110		
Strontium	0.0250 U	0.0250	0.500	mg/kg	103		84-110		
Tin	1.52 J	0.320	10.0	mg/kg	105		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	87		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	96		80-120		
Batch number: 113395711003	Sample number(s): 6487688-6487692								
Mercury	0.0067 U	0.0067	0.0947	mg/kg	92		83-119		
Batch number: 113405713003	Sample number(s): 6487693								
Mercury	0.000026 U	0.00002 6	0.00020	mg/l	102	101	80-120	1	20
Batch number: 113411848003	Sample number(s): 6487693								
Aluminum	0.0801 U	0.0801	0.200	mg/l	101	100	90-112	1	20
Boron	0.0022 U	0.0022	0.0500	mg/l	96	96	89-110	0	20
Calcium	0.0705 U	0.0705	0.200	mg/l	104	105	90-110	0	20
Iron	0.0141 U	0.0141	0.200	mg/l	117*	105	90-112	11	20
Lithium	0.0076 U	0.0076	0.0200	mg/l	101	101	90-110	0	20
Magnesium	0.0430 J	0.0067	0.100	mg/l	107	107	90-110	1	20
Manganese	0.00044 U	0.00044	0.0050	mg/l	100	101	90-110	0	20
Phosphorus	0.0047 U	0.0047	0.100	mg/l	101	101	90-110	0	20
Potassium	0.0874 U	0.0874	0.500	mg/l	106	106	85-115	0	20
Sodium	0.0647 U	0.0647	1.00	mg/l	102	102	87-114	0	20
Strontium	0.00022 U	0.00022	0.0050	mg/l	100	101	90-110	0	20
Tin	0.0043 U	0.0043	0.0200	mg/l	98	99	90-110	0	20
Titanium	0.00046 U	0.00046	0.0100	mg/l	101	101	90-113	0	20
Zirconium	0.0042 U	0.0042	0.0500	mg/l	102	103	90-110	1	20
Batch number: 113416050004A	Sample number(s): 6487693								
Antimony	0.00042 U	0.00042	0.0010	mg/l	106	109	87-110	3	20
Arsenic	0.00095 U	0.00095	0.0020	mg/l	110	110	86-111	0	20
Beryllium	0.00013 U	0.00013	0.00050	mg/l	105	108	90-113	3	20
Cadmium	0.00020 U	0.00020	0.00050	mg/l	109	110	90-114	0	20
Chromium	0.00060 U	0.00060	0.0020	mg/l	109	111	90-118	2	20
Cobalt	0.00010 U	0.00010	0.00050	mg/l	113	112	87-113	1	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Copper	0.00038 U	0.00038	0.0020	mg/l	112	113	90-113	1	20
Lead	0.000080 U	0.00008	0.0010	mg/l	104	107	90-115	3	20
Nickel	0.00050 U	0.00050	0.0020	mg/l	108	107	90-113	1	20
Silver	0.000098 U	0.00009	0.00050	mg/l	109	107	90-115	2	20
Thallium	0.00015 U	0.00015	0.00050	mg/l	105	101	89-116	4	20
Vanadium	0.00018 U	0.00018	0.00050	mg/l	110	109	89-116	1	20
Zinc	0.0040 U	0.0040	0.0150	mg/l	110	110	90-116	0	20
Batch number: 113416050004B	Sample number(s): 6487693								
Selenium	0.00027 U	0.00027	0.0020	mg/l	103	105	85-114	2	20
Batch number: 113416050004C	Sample number(s): 6487693								
Molybdenum	0.00025 U	0.00025	0.00050	mg/l	108	107	89-115	1	20
Batch number: 113416050004D	Sample number(s): 6487693								
Barium	0.00069 U	0.00069	0.0020	mg/l	108	106	88-113	2	20
Batch number: 11335495401B	Sample number(s): 6487693								
3b Cr VI by EPA 7199	5.0 U	5.0	10.0	ug/l	99	100	90-110	1	20
Batch number: 11336281101A	Sample number(s): 6487693								
7b Perchlorate EPA 314.0	0.70 U	0.70	2.0	ug/l	107	101	85-115	5	20
Batch number: 11337373601A	Sample number(s): 6487693								
11b Anions by 300.0 - Fluoride	0.080 U	0.080	0.10	mg/l	100	100	90-110	0	20
11b Anions by 300.0 - Nitrate	0.050 U	0.050	0.10	mg/l	101	102	90-110	1	20
Batch number: 11339102201B	Sample number(s): 6487688								
16a Cyanide by 9012B	0.18 U	0.18	0.50	mg/kg	101		80-120		
Batch number: 11341117101B	Sample number(s): 6487693								
16b Cyanide by 9012B	0.0050 U	0.0050	0.010	mg/l	102	108	90-110	6	20
Batch number: 11341243202A	Sample number(s): 6487688-6487692								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	100		80-120		
Batch number: 11342342201B	Sample number(s): 6487688-6487692								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	100		85-115		
Batch number: 11348621201A	Sample number(s): 6487688-6487691								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11348621201B	Sample number(s): 6487692								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11341020003A	Sample number(s): 6487693								
17b pH by 9040B					100	100	90-110	0	3
Batch number: 11346039401B	Sample number(s): 6487688-6487692								
17a pH by 9045C					100		95-105		
Batch number: 11343162401B	Sample number(s): 6487688-6487692								
Moisture Content by 160.3					100		80-120		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11337SLC026	Sample number(s): 6487688-6487692 UNSPK: P487630								
Acenaphthene	90	92	75-115	2	30				
Acenaphthylene	102	102	81-110	0	30				
Aniline	0*	0*	18-116	0	30				
Anthracene	95	93	75-115	1	30				
Benzidine	0*	0*	35-141	0	30				
Benzo(a)anthracene	85	85	65-122	1	30				
Benzo(a)pyrene	99	100	57-126	1	30				
Benzo(b)fluoranthene	94	91	59-125	3	30				
Benzo(g,h,i)perylene	96	102	59-127	6	30				
Benzo(k)fluoranthene	94	93	56-132	1	30				
Benzoic acid	0*	0*	10-173	0	30				
Benzyl alcohol	0*	0*	67-115	0	30				
4-Bromophenyl-phenylether	94	92	67-129	2	30				
Butylbenzylphthalate	98	91	73-134	6	30				
Di-n-butylphthalate	95	91	67-123	4	30				
Carbazole	96	91	64-120	5	30				
4-Chloro-3-methylphenol	91	83	62-122	9	30				
4-Chloroaniline	65	63	13-107	3	30				
bis(2-Chloroethoxy)methane	88	84	75-104	4	30				
bis(2-Chloroethyl)ether	85	85	60-116	0	30				
bis(2-Chloroisopropyl)ether	87	89	55-142	3	30				
2-Chloronaphthalene	86	76	50-141	11	30				
2-Chlorophenol	92	91	73-121	1	30				
4-Chlorophenyl-phenylether	88	88	80-109	0	30				
Chrysene	86	82	62-128	4	30				
Dibenz(a,h)anthracene	93	94	65-125	2	30				
Dibenzofuran	90	89	71-112	1	30				
1,2-Dichlorobenzene	92	86	66-108	7	30				
1,3-Dichlorobenzene	86	88	63-109	2	30				
1,4-Dichlorobenzene	88	87	58-108	1	30				
3,3'-Dichlorobenzidine	60	61	28-109	1	30				
2,4-Dichlorophenol	96	89	66-123	8	30				
Diethylphthalate	91	93	66-118	2	30				
2,4-Dimethylphenol	89	92	68-118	3	30				
3,5-Dimethylphenol	99	95	71-127	5	30				
Dimethylphthalate	89	90	64-118	1	30				
4,6-Dinitro-2-methylphenol	0*	0*	11-126	0	30				
2,4-Dinitrophenol	114	108	20-143	5	30				
2,4-Dinitrotoluene	80	79	56-129	1	30				
2,6-Dinitrotoluene	83	88	69-123	7	30				
1,2-Diphenylhydrazine	92	91	71-129	1	30				
bis(2-Ethylhexyl)phthalate	92	90	63-122	3	30				
Fluoranthene	98	94	73-112	4	30				
Fluorene	93	94	63-121	2	30				
Hexachlorobenzene	90	83	77-114	8	30				
Hexachlorobutadiene	89	96	62-120	7	30				
Hexachlorocyclopentadiene	81	71	10-153	12	30				
Hexachloroethane	87	87	57-109	0	30				
Indeno(1,2,3-cd)pyrene	92	93	61-126	2	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Isophorone	88	84	73-102	4	30				
1-Methylnaphthalene	85	80	64-122	5	30				
2-Methylnaphthalene	88	85	76-114	3	30				
2-Methylphenol	96	89	75-111	7	30				
4-Methylphenol	87	80	59-123	8	30				
Naphthalene	92	88	72-116	4	30				
2-Nitroaniline	86	90	67-125	6	30				
3-Nitroaniline	80	78	59-122	1	30				
4-Nitroaniline	70	78	41-109	12	30				
Nitrobenzene	89	89	57-125	0	30				
2-Nitrophenol	85	85	56-127	0	30				
4-Nitrophenol	0*	0*	37-129	0	30				
N-Nitroso-di-n-propylamine	76	85	60-116	11	30				
N-Nitrosodimethylamine	88	84	47-116	4	30				
N-Nitrosodiphenylamine	96	93	71-122	3	30				
Di-n-octylphthalate	104	106	56-126	2	30				
Pentachlorophenol	155*	154*	28-127	1	30				
Phenanthrene	94	92	65-125	2	30				
Phenol	85	85	58-126	1	30				
Pyrene	94	91	74-126	4	30				
1,2,4-Trichlorobenzene	88	88	72-115	0	30				
2,4,5-Trichlorophenol	99	93	58-129	6	30				
2,4,6-Trichlorophenol	87	92	56-134	6	30				

Batch number: 11339SLD026	Sample number(s): 6487689-6487692 UNSPK: P487630								
Acenaphthene	101	94	63-105	7	30				
Acenaphthylene	110	108	67-114	2	30				
Anthracene	118*	118*	73-115	0	30				
Benzo(a)anthracene	131*	118	59-128	11	30				
Benzo(a)pyrene	126	143*	58-142	12	30				
Benzo(b)fluoranthene	192*	208*	54-163	8	30				
Benzo(g,h,i)perylene	79	79	33-141	0	30				
Benzo(k)fluoranthene	139	142	57-153	2	30				
Butylbenzylphthalate	155	174*	57-173	12	30				
Di-n-butylphthalate	148	167*	65-148	12	30				
Chrysene	154*	152*	67-123	1	30				
Dibenz(a,h)anthracene	65	62	22-133	6	30				
Diethylphthalate	139*	142*	70-136	2	30				
Dimethylphthalate	148*	148*	74-118	0	30				
Bis(2-Ethylhexyl)phthalate	170*	729*	39-167	124*	30				
Fluoranthene	135	120	51-149	12	30				
Fluorene	111	104	66-122	7	30				
Indeno(1,2,3-cd)pyrene	53	62	21-143	15	30				
1-Methylnaphthalene	109	95	72-123	13	30				
2-Methylnaphthalene	106*	94	64-103	12	30				
Naphthalene	108*	100	61-102	8	30				
N-Nitrosodimethylamine	109	92	48-113	17	30				
Di-n-octylphthalate	151	189	40-192	23	30				
Phenanthrene	113	103	62-122	9	30				
Pyrene	148*	127	51-131	15	30				

Batch number: 113400037A	Sample number(s): 6487688 UNSPK: P487630								
2,4-D	99	85	17-180	15	35				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Dalapon	37	36	10-125	3	50				
2,4-DB	81	74	10-201	9	50				
Dicamba	139	102	10-190	30	50				
Dinoseb	24	22	10-46	9	35				
2,4-DP (Dichlorprop)	113	94	33-178	18	50				
MCPA	149	112	10-213	26	50				
MCPP (Mecoprop)	138	71	10-184	64*	50				
2,4,5-T	89	84	10-156	6	35				
2,4,5-TP	93	72	24-141	25	35				
Batch number: 113390023A Sample number(s): 6487688 UNSPK: P487630									
Aldrin	30	0*	16-126	200*	50				
Alpha BHC	0*	16	10-129	200*	50				
Beta BHC	31	0*	14-147	200*	50				
Gamma BHC - Lindane	32	15	10-140	72*	50				
p,p-DDD	0*	0*	16-163	0	50				
p,p-DDE	54	26	18-161	69*	50				
p,p-DDT	0*	0*	10-176	0	50				
Delta BHC	0*	0*	23-140	0	50				
Dieldrin	0*	0*	19-154	0	50				
Endosulfan I	0*	0*	16-137	0	50				
Endosulfan II	0*	34	28-154	200*	50				
Endosulfan Sulfate	31	0*	21-160	200*	50				
Endrin	40	21	11-149	63*	50				
Endrin Aldehyde	11	30	10-148	38*	35				
Endrin Ketone	0*	0*	22-165	0	50				
Heptachlor	29	0*	13-126	200*	50				
Heptachlor Epoxide	36	12*	13-157	104*	50				
Methoxychlor	29*	21*	32-147	29	50				
Batch number: 113400026A Sample number(s): 6487688-6487692 UNSPK: P488950									
PCB-1016	63	74	29-146	17	50				
PCB-1260	72	93	39-149	26	50				
Batch number: 113360017A Sample number(s): 6487688 UNSPK: P487630									
Ethanol	81	80	48-130	2	20				
Isopropanol	88	88	12-149	1	20				
Methanol	65	62	43-138	6	20				
Batch number: 113390042A Sample number(s): 6487693 UNSPK: P487124									
Ethanol	112	112	62-145	0	20				
Isopropanol	104	104	73-131	0	20				
Methanol	112	112	52-159	0	20				
Batch number: 113400056A Sample number(s): 6487693 UNSPK: 6487693									
Diethylene glycol	105	120	83-130	13	20				
Ethylene glycol	90	125	89-125	33*	20				
Propylene glycol	90*	125	91-128	33*	20				
Batch number: 113420018A Sample number(s): 6487688 UNSPK: P487630									
Diethylene glycol	24*	23*	59-109	1	20				
Ethylene glycol	68	68	63-107	1	20				
Propylene glycol	77	77	63-107	0	20				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 113390013A	Sample number(s): 6487688 UNSPK: P487630								
m-Terphenyl	97	94	75-125	3	20				
o-Terphenyl	98	96	75-125	2	20				
p-Terphenyl	96	94	75-125	2	20				
Batch number: 113400014A	Sample number(s): 6487688 UNSPK: P487630								
EFH (C12-C14)	0*	0*	49-123	0	20				
EFH (C15-C20)	0*	0*	49-123	0	20				
EFH (C21-C30)	147 (2)	-288 (2)	49-123	6	20				
EFH (C30 - C40)	-4209 (2)	-3930 (2)	49-123	1	20				
EFH (C8-C11)	0*	0*	49-123	0	20				
Batch number: 113391026002A	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Antimony	43*	37*	75-125	12	20	0.115 J	0.0712 U	200* (1)	20
Arsenic	277*	165*	75-125	26*	20	4.22	3.91	7	20
Beryllium	204*	120	75-125	39*	20	0.478	0.465	3 (1)	20
Cadmium	188*	127*	75-125	35*	20	0.230	0.195	16 (1)	20
Chromium	263*	155*	75-125	28*	20	17.9	15.8	12	20
Cobalt	191*	128*	75-125	37*	20	6.73	5.67	17	20
Copper	257*	136*	75-125	39*	20	11.9	9.17	26*	20
Lead	329*	78	75-125	46*	20	10.2	6.14	50*	20
Nickel	256*	145*	75-125	35*	20	12.4	11.1	11	20
Silver	175*	124	75-125	35*	20	0.0492 J	0.0352 J	33* (1)	20
Thallium	202*	136*	75-125	29*	20	0.247	0.195	24* (1)	20
Vanadium	348*	191*	75-125	25*	20	37.8	33.3	13	20
Zinc	477 (2)	214 (2)	75-125	26*	20	69.1	58.2	17	20
Batch number: 113391026002B	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Selenium	131*	131*	75-125	1	20	0.257 J	0.521	68* (1)	20
Batch number: 113391026002C	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Molybdenum	179*	125	75-125	35*	20	0.915	0.649	34*	20
Batch number: 113391026002D	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Barium	550 (2)	130 (2)	75-125	31*	20	102	77.7	27*	20
Batch number: 113395708002	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Aluminum	611 (2)	863 (2)	75-125	3	20	13,400	12,600	6	20
Boron	98	99	84-115	1	20	4.59 J	3.87 J	17 (1)	20
Calcium	287 (2)	386 (2)	75-125	7	20	4,640	5,580	18	20
Iron	-2297 (2)	-1472 (2)	75-125	4	20	20,900	19,500	7	20
Lithium	100	98	82-114	1	20	21.3	20.2	5	20
Magnesium	97 (2)	200 (2)	75-125	4	20	4,860	4,940	2	20
Manganese	-31 (2)	6 (2)	75-125	6	20	308	258	18	20
Phosphorus	128*	118	75-125	2	20	368	382	4	20
Potassium	105	101	75-125	1	20	2,470	2,420	2	20
Sodium	98	98	75-125	1	20	138	136	2 (1)	20
Strontium	103	102	75-115	0	20	19.8	21.1	6	20
Tin	92	89	80-110	2	20	2.55 J	2.40 J	6 (1)	20

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Titanium	168 (2)	265 (2)	75-125	8	20	1,030	1,020	1	20
Zirconium	100	102	81-110	3	20	2.10 J	4.87	79* (1)	20
Batch number: 113395711003	Sample number(s): 6487688-6487692 UNSPK: P487630 BKG: P487630								
Mercury	106	70	65-135	8	20	0.528	0.478	10	20
Batch number: 11335495401B	Sample number(s): 6487693 UNSPK: P487411 BKG: P487411								
3b Cr VI by EPA 7199	110		59-135			5.0 U	5.0 U	0 (1)	20
Batch number: 11339102201B	Sample number(s): 6487688 UNSPK: P487640 BKG: P487640								
16a Cyanide by 9012B	102		75-125			0.18 U	0.17 U	0 (1)	20
Batch number: 11341243202A	Sample number(s): 6487688-6487692 UNSPK: P488950 BKG: P488950								
3a Cr VI by EPA 7199	108		75-125			0.20 U	0.20 U	0 (1)	20
Batch number: 11342342201B	Sample number(s): 6487688-6487692 UNSPK: P487641 BKG: P487641								
7a Perchlorate EPA 314.0	105		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11348621201A	Sample number(s): 6487688-6487691 UNSPK: P488950 BKG: P488950								
11a Anions by 300.0 - Fluoride	98		80-120			0.80 U	1.1	200* (1)	20
Batch number: 11348621201B	Sample number(s): 6487692 UNSPK: 6487692 BKG: 6487692								
11a Anions by 300.0 - Fluoride	91		80-120			2.2	3.5	45* (1)	20
Batch number: 11346039401B	Sample number(s): 6487688-6487692 BKG: 6487692								
17a pH by 9045C						8.35	8.39	0	3
Batch number: 11343162401B	Sample number(s): 6487688-6487692 BKG: P487644								
Moisture Content by 160.3						11.6	11.7	0	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 14b 1,4-Dioxane by 8260B SIM
Batch number: E113391AA
Toluene-d8

6487693	100
Blank	101
LCS	100
LCSD	100

Limits: 80-120

Analysis Name: 1b Volatile Organics EPA8260B
Batch number: Y113402AA

Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

6487693	95	99	99	95
Blank	95	98	99	95
LCS	96	101	102	100
LCSD	95	101	101	99

Limits: 86-118 80-120 88-110 86-115

Analysis Name: 5a Semivolatiles by EPA 8270C

Batch number: 11337SLC026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487688	90	95	66	81	89	82
6487689	93	100	72	87	94	93
6487690	95	101	62	85	93	89
6487691	93	96	91	84	89	84
6487692	94	98	87	85	90	87
Blank	92	98	94	86	88	86
LCS	91	96	93	88	91	85
MS	90	94	86	84	87	79
MSD	90	93	87	83	88	78

Limits: 25-120 25-130 35-130 40-130 45-130 45-135

Analysis Name: 4a Select SVOC EPA 8270SIM

Batch number: 11339SLD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487689	99	95	107
6487690	95	100	99
6487691	97	89	101
6487692	96	69	98
Blank	108	104	110
LCS	110	99	103
MS	118	107	113
MSD	109	92	109

Limits: 40-130 45-130 45-135

Analysis Name: 21b. NDMA in Water

Batch number: 11340WAA026

N-Nitrosodimethylamine-
d6

6487693	168*
Blank	170*
LCS	137
LCSD	170*

Limits: 50-150

Analysis Name: 5b Semivolatiles by EPA 8270C

Batch number: 11340WAC026

	2-Fluorophenol	Phenol-d6	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	48	29	91	86	87	84
Blank	47	29	90	86	87	83
LCS	58	36	90	87	91	84

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

LCSD	51	32	91	89	90	84
Limits:	20-130	20-120	30-130	40-130	45-130	45-135

Analysis Name: 4b Select SVOC EPA 8270SIM
Batch number: 11340WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6487693	98	91	99
Blank	93	94	95
LCS	102	101	98
LCSD	101	90	91
Limits:	64-147	68-132	53-129

Analysis Name: 9b TPH by EPA 8015B Gas C5-C12
Batch number: 11340A20A
Trifluorotoluene-F

6487693	97
Blank	96
LCS	116
LCSD	117
Limits:	63-135

Analysis Name: 20b Formaldehyde 8315A
Batch number: 113370002A
Butyraldehyde

6487693	98
Blank	101
LCS	104
LCSD	98
Limits:	45-145

Analysis Name: 13b Herbicides by EPA 8151
Batch number: 113370019A
2,4-Dichlorophenylacetic acid

6487693	97
Blank	89
LCS	100
LCSD	104
Limits:	35-144

Analysis Name: 12a Pesticides by 8081A
Batch number: 113390023A
Tetrachloro-m-xylene Decachlorobiphenyl

6487688	27*	0*
Blank	58	92
LCS	67	88
MS	37*	144*

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

MSD 18* 153*

Limits: 50-130 20-120

Analysis Name: 15b Energetics by 8330A
Batch number: 113400003A
2-Nitro-m-xylene

6487693 90
Blank 90
LCS 94
LCSD 93

Limits: 50-134

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113400026A
Tetrachloro-m-xylene Decachlorobiphenyl

6487688	79	54
6487689	83	55
6487690	89	95
6487691	87	92
6487692	89	96
Blank	71	82
LCS	92	108
LCSD	91	106
MS	75	84
MSD	91	100

Limits: 53-139 53-142

Analysis Name: 13a Herbicides by EPA 8151
Batch number: 113400037A
2,4-Dichlorophenylacetic acid

6487688 118
Blank 99
LCS 110
MS 138
MSD 124

Limits: 36-156

Analysis Name: 8b PCBs/PCTs by 8082
Batch number: 113400049A
Tetrachloro-m-xylene Decachlorobiphenyl

6487693	90	102
Blank	91	63
LCS	94	82
LCSD	91	75

Limits: 30-150 45-120

Analysis Name: 12b Pesticides by 8081A

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Batch number: 113400050A

Tetrachloro-m-xylene

Decachlorobiphenyl

6487693	96	104
Blank	97	73
LCS	99	98
LCSD	101	97

Limits: 52-141 40-144

Analysis Name: 18a Alcohols by 8015B

Batch number: 113360017A

Acetone

6487688	87
Blank	95
LCS	94
MS	87
MSD	92

Limits: 42-138

Analysis Name: 9b TPH by EPA 8015B Oil/Diesel

Batch number: 113390010A

Chlorobenzene

Orthoterphenyl

6487693	79	92
Blank	80	87
LCS	78	87
LCSD	67	76

Limits: 28-152 52-131

Analysis Name: 22a Terphenyls by 8015B

Batch number: 113390013A

n-Triacontane-d62

6487688	80
Blank	72
LCS	72
MS	105
MSD	93

Limits: 19-152

Analysis Name: 18b Alcohols by 8015B

Batch number: 113390042A

Acetone

6487693	96
Blank	98
LCS	98
MS	98
MSD	98

Limits: 54-147

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/11 at 01:53 PM

Group Number: 1279187

Surrogate Quality Control

Analysis Name: 9a TPH by EPA 8015B Oil/Diesel

Batch number: 113400014A

Chlorobenzene Orthoterphenyl

6487688	84	89
Blank	65	74
LCS	69	81
MS	71	77
MSD	74	84

Limits: 37-125 47-145

Analysis Name: 22b Terphenyls by 8015B

Batch number: 113400019A

n-Triacontane-d62

6487693	71
Blank	75
LCS	74
LCSD	73

Limits: 17-138

Analysis Name: 19b Glycols by 8015B

Batch number: 113400056A

Tetramethylene glycol

6487693	98
Blank	105
LCS	107
MS	109
MSD	120

Limits: 29-157

Analysis Name: 19a Glycols by 8015B

Batch number: 113420018A

Tetramethylene glycol

6487688	89
Blank	98
LCS	98
MS	89
MSD	89

Limits: 29-137

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Sample # 6487688-93

SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY ANALYTES										SECONDARY ANALYTES								Other Instructions and Notes	
						*Metals EPA 6010B/206&7471A	**Fluoride EPA 300.0	**SVOCs EPA 8270C & PAHs 8270 BLM	**PCBs/MFCS EPA 8062	**Dioxin/Furan EPA 1613B	**Pesticides EPA 314.0	**Hex Chrome EPA 7199	**pH EPA 8045C/8040B	Perrhenate Confirmation by EPA 6850 (10%)	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**TPH-EFH EPA 8015B Mod.	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**Terphenyls EPA 8015B		**Glycols EPA 8015B
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																				
DUP17-SA6-QC-120111	12.01.11	0825	SOIL	NONE	1-SS Sleeve		X	X																	
DUP17-SA6-QC-120111	12.01.11	0825	SOIL	NONE	2-16 oz jars	X	X		X	X	X	X		X	X	X						X	X	X	X
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-SS Sleeve			X	X																
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-SS Sleeve			X	X																
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-SS Sleeve			X	X																
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-SS Sleeve			X	X																
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X												
Relinquished by: (Signature) _____ Date/Time 12/01/2011 / 1630						Received for Laboratory by: (Signature) _____ Airbill No.(s) 8767 9857 5007, 5029																			Laboratory: Lancaster Laboratories, Inc.
Received by: (Signature) _____ Date/Time						Shirley Lehman 12/2/11 091																			

acct#13013 Cp#1279187

Sample# 6487688-93

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										ENCORES		SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetra in under EPA Method 8270C.							*Metals EPA 8010/8220/821/471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/PCP/PAHs EPA 8082	*Quin/Fluor EPA 1631B	*Pesticides EPA 314.0	*Herbicides EPA 7199	*H EPA 8060/8090/8098	Pesticides Confirmation by EPA 8850 (10%)	*Pesticides EPA 8061A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	VOCs EPA 8260B \$	1,4-Dioxane EPA 8260SIM \$	TPH-GRO EPA 8015B \$	*TPH-EPH EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*Tr-NDMA EPA 1625C	*Ethenoxides EPA 8330A	*Cyanide EPA 8012B	*Tetraphenyls EPA 8015B	*Glycols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	12-1 liter ambers			X	X	X					X	X			X			X	X		X				
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-500 mL poly		X				X	X	X																
EB-SA6-SB-120111	12.01.11	1400	WATER	HNO3	1-500 mL poly	X																							
EB-SA6-SB-120111	12.01.11	1400	WATER	NaOH	1-500 mL poly																		X						
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-250 mL glass															X									
EB-SA6-SB-120111	12.01.11	1400	WATER	HCL	11-40 mL vials											X	X	X									X		
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	4-40 mL vials														X						X				
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)																						Laboratory:			
		12/01/2011 / 1630																								Lancaster Laboratories, Inc.			
Received by: (Signature)		Date/Time		Airbill No.(s)																									
				8767 9857 5007, 5029		Suzette Lehman																				12/2/11 0915			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/02/2011
Group Number: 1279188
SDG: DX156
PO Number: 1203-004-009-AL
Release Number: TRACKING #12571
State of Sample Origin: CA

Client Sample Description

DUP17-SA6-QC-120111 Soil
SL-023-SA8S-SB-4.0-5.0 Soil
SL-023-SA8S-SB-9.0-10.0 Soil
SL-022-SA8S-SB-4.0-5.0 Soil
SL-022-SA8S-SB-8.0-9.0 Soil
EB-SA6-SB-120111 Water

Lancaster Labs (LLI)

6487694
6487695
6487696
6487697
6487698
6487699

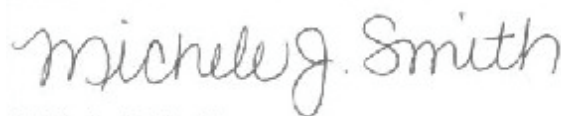
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO
ELECTRONIC COPY TO
CDM Federal Services Program
Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	7.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.124	JBQ 0.0125	1.05	1
11031	12378-PeCDD	40321-76-4	0.299	JB 0.0263	5.25	1
11031	123478-HxCDD	39227-28-6	0.857	JB 0.0387	5.25	1
11031	123678-HxCDD	57653-85-7	2.87	JB 0.0412	5.25	1
11031	123789-HxCDD	19408-74-3	1.06	JB 0.0411	5.25	1
11031	1234678-HpCDD	35822-46-9	125	B 0.0685	5.25	1
11031	OCDD	3268-87-9	1,990	B 0.0414	10.5	1
11031	2378-TCDF	51207-31-9	0.159	JBQ 0.0338	1.05	1
11031	12378-PeCDF	57117-41-6	1.44	JB 0.0254	5.25	1
11031	23478-PeCDF	57117-31-4	0.313	JBQ 0.0231	5.25	1
11031	123478-HxCDF	70648-26-9	0.783	JB 0.0298	5.25	1
11031	123678-HxCDF	57117-44-9	0.551	JB 0.0296	5.25	1
11031	123789-HxCDF	72918-21-9	0.249	JB 0.0298	5.25	1
11031	234678-HxCDF	60851-34-5	0.684	JB 0.0292	5.25	1
11031	1234678-HpCDF	67562-39-4	12.5	B 0.0206	5.25	1
11031	1234789-HpCDF	55673-89-7	1.24	JB 0.0237	5.25	1
11031	OCDF	39001-02-0	37.2	B 0.0137	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	98	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	93	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	70	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: DUP17-SA6-QC-120111 Soil
SSFL Area IV Collocated Soil Sampling
DUP17-SA6

LLI Sample # SW 6487694
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 08:25

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5616 SDG#: DX156-16FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 18:40	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	12.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0118 JB	0.00955	1.12	1
11031	12378-PeCDD	40321-76-4	0.0222 JBQ	0.00875	5.60	1
11031	123478-HxCDD	39227-28-6	0.0201 JB	0.0103	5.60	1
11031	123678-HxCDD	57653-85-7	0.0349 JB	0.0111	5.60	1
11031	123789-HxCDD	19408-74-3	0.0346 JBQ	0.0100	5.60	1
11031	1234678-HpCDD	35822-46-9	0.363 JB	0.0113	5.60	1
11031	OCDD	3268-87-9	1.37 JB	0.0103	11.2	1
11031	2378-TCDF	51207-31-9	0.0156 JBQ	0.0106	1.12	1
11031	12378-PeCDF	57117-41-6	0.0333 JBQ	0.00466	5.60	1
11031	23478-PeCDF	57117-31-4	0.0701 JB	0.00477	5.60	1
11031	123478-HxCDF	70648-26-9	0.0444 JB	0.00625	5.60	1
11031	123678-HxCDF	57117-44-9	0.0306 JB	0.00523	5.60	1
11031	123789-HxCDF	72918-21-9	0.0357 JB	0.00614	5.60	1
11031	234678-HxCDF	60851-34-5	0.0396 JB	0.00557	5.60	1
11031	1234678-HpCDF	67562-39-4	0.0967 JBQ	0.00682	5.60	1
11031	1234789-HpCDF	55673-89-7	0.0504 JBQ	0.0105	5.60	1
11031	OCDF	39001-02-0	0.150 JB	0.0115	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	89	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	54	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5617 SDG#: DX156-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487695
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:15

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/20/2011 17:30

Chantilly VA 20151

X5617 SDG#: DX156-17

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 19:37	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	9.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0266 JBQ	0.0111	1.10	1
11031	12378-PeCDD	40321-76-4	0.0272 JBQ	0.0106	5.48	1
11031	123478-HxCDD	39227-28-6	0.0140 JBQ	0.0104	5.48	1
11031	123678-HxCDD	57653-85-7	0.0308 JBQ	0.0105	5.48	1
11031	123789-HxCDD	19408-74-3	0.0336 JBQ	0.0103	5.48	1
11031	1234678-HpCDD	35822-46-9	0.277 JB	0.00997	5.48	1
11031	OCDD	3268-87-9	0.609 JB	0.00997	11.0	1
11031	2378-TCDF	51207-31-9	0.0227 JB	0.0123	1.10	1
11031	12378-PeCDF	57117-41-6	0.0271 JBQ	0.00609	5.48	1
11031	23478-PeCDF	57117-31-4	0.0637 JBQ	0.00520	5.48	1
11031	123478-HxCDF	70648-26-9	0.0386 JB	0.00653	5.48	1
11031	123678-HxCDF	57117-44-9	0.0327 JBQ	0.00554	5.48	1
11031	123789-HxCDF	72918-21-9	0.0419 JB	0.00598	5.48	1
11031	234678-HxCDF	60851-34-5	0.0394 JB	0.00554	5.48	1
11031	1234678-HpCDF	67562-39-4	0.0998 JB	0.00598	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0371 JBQ	0.00797	5.48	1
11031	OCDF	39001-02-0	0.118 JBQ	0.00886	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	50	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	52	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-023-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-023-SA8S-SB

LLI Sample # SW 6487696
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 11:55

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5618 SDG#: DX156-18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 20:33	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	11.1	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0172 JBQ	0.00911	1.10	1
11031	12378-PeCDD	40321-76-4	0.0331 JBQ	0.0103	5.51	1
11031	123478-HxCDD	39227-28-6	0.0181 JB	0.00877	5.51	1
11031	123678-HxCDD	57653-85-7	0.0272 JB	0.00911	5.51	1
11031	123789-HxCDD	19408-74-3	0.0329 JBQ	0.00855	5.51	1
11031	1234678-HpCDD	35822-46-9	0.276 JB	0.0107	5.51	1
11031	OCDD	3268-87-9	0.745 JB	0.00979	11.0	1
11031	2378-TCDF	51207-31-9	0.0185 JBQ	0.0124	1.10	1
11031	12378-PeCDF	57117-41-6	0.0343 JBQ	0.00517	5.51	1
11031	23478-PeCDF	57117-31-4	0.0748 JB	0.00506	5.51	1
11031	123478-HxCDF	70648-26-9	0.0318 JB	0.00619	5.51	1
11031	123678-HxCDF	57117-44-9	0.0284 JB	0.00517	5.51	1
11031	123789-HxCDF	72918-21-9	0.0344 JB	0.00641	5.51	1
11031	234678-HxCDF	60851-34-5	0.0370 JB	0.00551	5.51	1
11031	1234678-HpCDF	67562-39-4	0.0888 JBQ	0.00439	5.51	1
11031	1234789-HpCDF	55673-89-7	0.0318 JBQ	0.00664	5.51	1
11031	OCDF	39001-02-0	0.133 JB	0.0105	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487697
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:40

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5619 SDG#: DX156-19

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 21:30	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	12.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0113 JB	0.0106	1.08	1
11031	12378-PeCDD	40321-76-4	0.0244 JBQ	0.00852	5.41	1
11031	123478-HxCDD	39227-28-6	0.0147 JBQ	0.00966	5.41	1
11031	123678-HxCDD	57653-85-7	0.0316 JB	0.00977	5.41	1
11031	123789-HxCDD	19408-74-3	0.0302 JBQ	0.00955	5.41	1
11031	1234678-HpCDD	35822-46-9	0.242 JB	0.0107	5.41	1
11031	OCDD	3268-87-9	0.519 JB	0.0103	10.8	1
11031	2378-TCDF	51207-31-9	0.0201 JBQ	0.0108	1.08	1
11031	12378-PeCDF	57117-41-6	0.0201 JB	0.00557	5.41	1
11031	23478-PeCDF	57117-31-4	0.0569 JB	0.00523	5.41	1
11031	123478-HxCDF	70648-26-9	0.0391 JBQ	0.00591	5.41	1
11031	123678-HxCDF	57117-44-9	0.0263 JB	0.00500	5.41	1
11031	123789-HxCDF	72918-21-9	0.0255 JBQ	0.00602	5.41	1
11031	234678-HxCDF	60851-34-5	0.0367 JB	0.00557	5.41	1
11031	1234678-HpCDF	67562-39-4	0.0857 JB	0.00511	5.41	1
11031	1234789-HpCDF	55673-89-7	0.0319 JB	0.00761	5.41	1
11031	OCDF	39001-02-0	0.125 JB	0.0101	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	53	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	53	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5620 SDG#: DX156-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-022-SA8S-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-022-SA8S-SB

LLI Sample # SW 6487698
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 15:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/02/2011 09:15

Suite 210

Reported: 12/20/2011 17:30

Chantilly VA 20151

X5620 SDG#: DX156-20

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11342003	12/16/2011 22:27	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11342003	12/08/2011 11:00	Deborah M Zimmerman	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162401B	12/09/2011 19:07	Scott W Freisher	1

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487699
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5621 SDG#: DX156-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	pg/l	pg/l	pg/l	
10915	2378-TCDD	1746-01-6	0.684 U	0.684	2.25	1
10915	12378-PeCDD	40321-76-4	0.576 U	0.576	11.3	1
10915	123478-HxCDD	39227-28-6	0.371 U	0.371	11.3	1
10915	123678-HxCDD	57653-85-7	0.534 JBQ	0.388	11.3	1
10915	123789-HxCDD	19408-74-3	0.378 U	0.378	11.3	1
10915	1234678-HpCDD	35822-46-9	4.07 JB	0.439	11.3	1
10915	OCDD	3268-87-9	5.86 JB	0.382	22.5	1
10915	2378-TCDF	51207-31-9	0.521 U	0.521	2.25	1
10915	12378-PeCDF	57117-41-6	0.251 U	0.251	11.3	1
10915	23478-PeCDF	57117-31-4	0.883 JBQ	0.222	11.3	1
10915	123478-HxCDF	70648-26-9	1.01 JBQ	0.274	11.3	1
10915	123678-HxCDF	57117-44-9	0.475 JB	0.261	11.3	1
10915	123789-HxCDF	72918-21-9	0.251 U	0.251	11.3	1
10915	234678-HxCDF	60851-34-5	0.834 JBQ	0.256	11.3	1
10915	1234678-HpCDF	67562-39-4	2.74 JB	0.223	11.3	1
10915	1234789-HpCDF	55673-89-7	0.318 JBQ	0.259	11.3	1
10915	OCDF	39001-02-0	2.46 JB	0.579	22.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	82	17 - 157
13C12-2378-TCDF	87	24 - 169
13C12-12378-PeCDF	85	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	85	28 - 136
13C12-123789-HxCDF	103	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	87	26 - 138
13C12-OCDF	87	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present

Sample Description: EB-SA6-SB-120111 Water
SSFL Area IV Collocated Soil Sampling
EB-SA6-SB

LLI Sample # WW 6487699
LLI Group # 1279188
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/01/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/02/2011 09:15

Reported: 12/20/2011 17:30

X5621 SDG#: DX156-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
S	Saturation of detection signal					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	11339001	12/09/2011 19:12	Joseph D Anderson	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	11339001	12/05/2011 08:45	Ginelle L Haines	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11343162401B	Sample number(s): 6487694-6487698				100		80-120		
Moisture Content by 160.3									

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11339001	Sample number(s): 6487699								
2378-TCDD	0.554 U	0.554	2.00	pg/l	111		67-158		
12378-PeCDD	0.365 U	0.365	10.0	pg/l	109		70-142		
123478-HxCDD	0.276 U	0.276	10.0	pg/l	107		70-164		
123678-HxCDD	0.498 J	0.276	10.0	pg/l	105		76-134		
123789-HxCDD	0.726 J	0.282	10.0	pg/l	112		64-162		
1234678-HpCDD	3.79 J	0.252	10.0	pg/l	109		70-140		
OCDD	6.63 J	0.306	20.0	pg/l	105		78-144		
2378-TCDF	0.424 U	0.424	2.00	pg/l	103		75-158		
12378-PeCDF	0.230 J	0.174	10.0	pg/l	112		80-134		
23478-PeCDF	0.598 J	0.147	10.0	pg/l	106		68-160		
123478-HxCDF	0.975 J	0.216	10.0	pg/l	109		72-134		
123678-HxCDF	0.664 J	0.208	10.0	pg/l	108		84-130		
123789-HxCDF	0.327 J	0.190	10.0	pg/l	109		78-130		
234678-HxCDF	1.06 J	0.196	10.0	pg/l	106		70-156		
1234678-HpCDF	3.73 J	0.155	10.0	pg/l	101		82-122		
1234789-HpCDF	0.384 J	0.169	10.0	pg/l	106		78-138		
OCDF	2.25 J	0.371	20.0	pg/l	104		63-170		

Batch number: 11342003	Sample number(s): 6487694-6487698								
2378-TCDD	0.0313 J	0.0144	1.00	ng/kg	101		67-158		
12378-PeCDD	0.0899 J	0.0143	5.00	ng/kg	101		70-142		
123478-HxCDD	0.0576 J	0.0114	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0571 J	0.0118	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0703 J	0.0113	5.00	ng/kg	107		64-162		
1234678-HpCDD	0.248 J	0.0122	5.00	ng/kg	100		70-140		
OCDD	0.403 J	0.0113	10.0	ng/kg	101		78-144		
2378-TCDF	0.0290 J	0.0127	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0765 J	0.00820	5.00	ng/kg	100		80-134		
23478-PeCDF	0.118 J	0.00780	5.00	ng/kg	94		68-160		
123478-HxCDF	0.0750 J	0.0105	5.00	ng/kg	101		72-134		
123678-HxCDF	0.0647 J	0.00910	5.00	ng/kg	104		84-130		
123789-HxCDF	0.111 J	0.0107	5.00	ng/kg	104		78-130		
234678-HxCDF	0.0820 J	0.00970	5.00	ng/kg	100		70-156		
1234678-HpCDF	0.117 J	0.00660	5.00	ng/kg	92		82-122		
1234789-HpCDF	0.0904 J	0.0102	5.00	ng/kg	101		78-138		
OCDF	0.207 J	0.0135	10.0	ng/kg	102		63-170		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11343162401B Moisture Content by 160.3	Sample number(s): 6487694-6487698 BKG: P487644								
						11.6	11.7	0	20
Batch number: 11342003	Sample number(s): 6487694-6487698 UNSPK: P487669								
2378-TCDD	95	99	67-158	1	25				
12378-PeCDD	94	96	70-142	2	25				
123478-HxCDD	93	97	70-164	0	25				
123678-HxCDD	90	93	76-134	0	25				
123789-HxCDD	101	101	64-162	4	25				
1234678-HpCDD	61*	75	70-140	6	25				
OCDD	-135 (2)	-33 (2)	78-144	17	25				
2378-TCDF	93	96	75-158	1	25				
12378-PeCDF	96	97	80-134	3	25				
23478-PeCDF	93	90	68-160	6	25				
123478-HxCDF	98	100	72-134	1	25				
123678-HxCDF	99	100	84-130	3	25				
123789-HxCDF	101	101	78-130	3	25				
234678-HxCDF	97	97	70-156	4	25				
1234678-HpCDF	92	93	82-122	2	25				
1234789-HpCDF	100	95	78-138	8	25				
OCDF	99	100	63-170	2	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10b Dioxin/Furan by EPA 1613B

Batch number: 11339001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6487699	78	87	79	81	85	103
Blank	73	92	73	75	80	97
OPR	75	87	76	79	87	101
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6487699	86	87	87	77	76	77
Blank	82	88	86	79	70	74
OPR	90	97	104	79	79	78
Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:30 PM

Group Number: 1279188

Surrogate Quality Control

6487699	77	80	82	87	85
Blank	72	79	84	83	87
OPR	77	88	96	89	89

Limits:	28-130	23-140	17-157	24-169	24-185

Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 11342003

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6487694	83	93	76	77	76	79
6487695	64	72	65	75	69	69
6487696	63	76	57	66	65	63
6487697	66	72	67	78	71	66
6487698	65	71	63	74	65	64
Blank	80	82	74	83	78	76
MS	85	83	73	73	72	69
MSD	89	94	81	83	81	80
OPR	68	68	65	74	69	67

Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD

6487694	79	75	70	98	80	78
6487695	89	63	54	85	80	79
6487696	74	60	52	88	72	70
6487697	84	60	53	81	79	82
6487698	85	61	53	84	76	76
Blank	106	74	72	94	89	92
MS	65	54	41	97	80	82
MSD	75	69	49	111	87	90
OPR	97	60	55	80	79	80

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	

6487694	77	79	72	79	91
6487695	82	77	68	54	76
6487696	72	76	63	50	72
6487697	82	77	65	54	74
6487698	77	80	65	53	71
Blank	90	99	94	70	84
MS	79	65	45	75	82
MSD	89	78	53	83	90
OPR	79	86	75	59	74

Limits:	28-130	23-140	17-157	24-169	24-185

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

(2) The unspiked result was more than four times the spike added.

acct#13013 Cp#1279188

Sample# 6487694-99

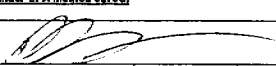
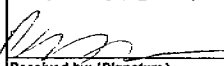
CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						PRIMARY ANALYTES										SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analytes as indicated on sample labels *Secondary Analytes as indicated on sample labels *Moisture by EPA 100.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.						*Metals EPA 6010/6020B/2471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBAPCTs EPA 8062	*Dioxin/Furan EPA 1631B	*Pesticides EPA 314.0	*Hex Chrom EPA 7189	*pH EPA 8045/9040B	*Pesticide Confirmation by EPA 9850 (10%)	*Pesticides EPA 8061A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	*TPH-EFT EPA 8015B Mod.	*Nitrates EPA 300.0	*Formaldehyde EPA 8315A	*n-NDMA EPA 1625C	*Energetics EPA 8330A	*Cyanide EPA 9012B	*Terphenyls EPA 9015B	*Glycols EPA 8015B	*Alcohols EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
DUP17-SA8-QC-120111	12.01.11	0825	SOIL	NONE	1-SS Sleeve			X	X																	
DUP17-SA8-QC-120111	12.01.11	0825	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X		X	X	X				X	X	X	X		
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-SS Sleeve			X	X																	
SL-023-SA8S-SB-4.0-5.0	12.01.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X													
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-SS Sleeve			X	X																	
SL-023-SA8S-SB-9.0-10.0	12.01.11	1155	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X													
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-SS Sleeve			X	X																	
SL-022-SA8S-SB-4.0-5.0	12.01.11	1440	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X													
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-SS Sleeve			X	X																	
SL-022-SA8S-SB-8.0-9.0	12.01.11	1530	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X													
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)														Laboratory:									
	12/01/2011 / 1630																Lancaster Laboratories, Inc.									
Received by: (Signature)	Date/Time		Airbill No.(s)																							
			8767 9857 5007, 5029				Suzette Lehman										12/2/11 0915									

acct# 13013 Cp# 1279188

Sample# 6487694-99

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										ENCOREs		SECONDARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analytes as indicated on sample labels **Secondary Analytes as indicated on sample labels \$ Moisture by EPA 180.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetrahs under EPA Method 8270C.																													
Samples Signatures: 																													
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	*Metals EPA 8210/8220/8230/8240/8260/8270/8280/8290/8300/8310/8320/8330/8340/8350/8360/8370/8380/8390/8400/8410/8420/8430/8440/8450/8460/8470/8480/8490/8500/8510/8520/8530/8540/8550/8560/8570/8580/8590/8600/8610/8620/8630/8640/8650/8660/8670/8680/8690/8700/8710/8720/8730/8740/8750/8760/8770/8780/8790/8800/8810/8820/8830/8840/8850/8860/8870/8880/8890/8900/8910/8920/8930/8940/8950/8960/8970/8980/8990/9000/9010/9020/9030/9040/9050/9060/9070/9080/9090/9100/9110/9120/9130/9140/9150/9160/9170/9180/9190/9200/9210/9220/9230/9240/9250/9260/9270/9280/9290/9300/9310/9320/9330/9340/9350/9360/9370/9380/9390/9400/9410/9420/9430/9440/9450/9460/9470/9480/9490/9500/9510/9520/9530/9540/9550/9560/9570/9580/9590/9600/9610/9620/9630/9640/9650/9660/9670/9680/9690/9700/9710/9720/9730/9740/9750/9760/9770/9780/9790/9800/9810/9820/9830/9840/9850/9860/9870/9880/9890/9900/9910/9920/9930/9940/9950/9960/9970/9980/9990/10000	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCB/MPCs EPA 8082	*Dioxin/Furan EPA 1631B	*Pesticides EPA 8161A	*Herbicides EPA 8151 (surface soil only)	*Fertilizers EPA 8151 (surface soil only)	*VOCs EPA 8260C \$	*1,4-Dioxane EPA 8260SIM \$	*TPH-GRO EPA 8015B \$	*TPH-EPA EPA 8015B Mod.	*Nitrate EPA 300.0	*Formaldehyde EPA 8315A	*NDA EPA 1625C	*Emergents EPA 8330A	*Cyanide EPA 9012B	*Terphenyls EPA 8015B	*Glycols EPA 8015B	*Alcohols EPA 8015B				
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	12-1 liter ambers			X	X	X																			
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-500 mL poly		X																						
EB-SA6-SB-120111	12.01.11	1400	WATER	HNO3	1-500 mL poly	X																							
EB-SA6-SB-120111	12.01.11	1400	WATER	NaOH	1-500 mL poly																								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	1-250 mL glass										X														
EB-SA6-SB-120111	12.01.11	1400	WATER	HCL	11-40 mL vials								X	X	X						X								
EB-SA6-SB-120111	12.01.11	1400	WATER	NONE	4-40 mL vials										X					X									
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)												Laboratory: Lancaster Laboratories, Inc.													
		12/01/2011 / 1630																											
Received by: (Signature)		Date/Time		Airbill No.(s)												12/21/11 0915													
				8767 9857 5007, 5029												Suzette Lehman													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 19, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/03/2011

Group Number: 1279335

SDG: DE292

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-019-SA8S-SB-4.0-5.0 Soil	6488950
SL-019-SA8S-SB-4.0-5.0MS Soil	6488951
SL-019-SA8S-SB-4.0-5.0MSD Soil	6488952
SL-019-SA8S-SB-4.0-5.0DUP Soil	6488953
SL-019-SA8S-SB-4.0-5.0RL MS Soil	6488954
SL-019-SA8S-SB-4.0-5.0RL LCS Soil	6488955
SL-020-SA8S-SB-4.0-5.0 Soil	6488956
SL-020-SA8S-SB-9.0-10.0 Soil	6488957
SL-021-SA8S-SB-4.0-5.0 Soil	6488958
SL-021-SA8S-SB-9.0-10.0 Soil	6488959
DUP02-SA8S-QC-120211 Soil	6488960

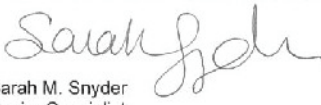
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program
COPY TO
1 COPY TO Data Package Group

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Sarah M. Snyder
Senior Specialist

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	180	U 180	530	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	180	U 180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	18	U 18	180	1
04688	Carbazole	86-74-8	18	U 18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	180	1
04688	4-Chloroaniline	106-47-8	70	U 70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	18	U 18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	18	U 18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	18	U 18	180	1
04688	2-Chloronaphthalene	91-58-7	18	U 18	180	1
04688	2-Chlorophenol	95-57-8	18	U 18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	180	1
04688	Dibenzofuran	132-64-9	18	U 18	180	1
04688	1,2-Dichlorobenzene	95-50-1	18	U 18	180	1
04688	1,3-Dichlorobenzene	541-73-1	18	U 18	180	1
04688	1,4-Dichlorobenzene	106-46-7	18	U 18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	350	1
04688	2,4-Dichlorophenol	120-83-2	18	U 18	180	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	180	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	180	U 180	530	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	180	1
04688	2,6-Dinitrotoluene	606-20-2	18	U 18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	18	U 18	180	1
04688	Hexachlorobenzene	118-74-1	18	U 18	180	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	180	U 180	530	1
04688	Hexachloroethane	67-72-1	18	U 18	180	1
04688	Isophorone	78-59-1	18	U 18	180	1
04688	2-Methylphenol	95-48-7	35	U 35	180	1
04688	4-Methylphenol	106-44-5	35	U 35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	18	U 18	180	1
04688	3-Nitroaniline	99-09-2	35	U 35	180	1
04688	4-Nitroaniline	100-01-6	70	U 70	180	1
04688	Nitrobenzene	98-95-3	18	U 18	180	1
04688	2-Nitrophenol	88-75-5	18	U 18	180	1
04688	4-Nitrophenol	100-02-7	180	U 180	530	1
04688	N-Nitroso-di-n-propylamine	621-64-7	18	U 18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	18	U 18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	180	U 180	530	1
04688	Phenol	108-95-2	18	U 18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	18 U	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.70 U	0.70	1.8	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.8	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.70 U	0.70	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.70 U	0.70	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.70 U	0.70	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.70 U	0.70	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.70 U	0.70	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.3 U	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	6.3 U	6.3	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.70 U	0.70	1.8	1
10138	Diethylphthalate	84-66-2	6.3 U	6.3	19	1
10138	Dimethylphthalate	131-11-3	6.3 U	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.3 U	6.3	19	1
10138	Fluoranthene	206-44-0	0.70 U	0.70	1.8	1
10138	Fluorene	86-73-7	0.70 U	0.70	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.70 U	0.70	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.70 U	0.70	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.70 U	0.70	1.8	1
10138	Naphthalene	91-20-3	0.70 U	0.70	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.70 U	0.70	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.3 U	6.3	19	1
10138	Phenanthrene	85-01-8	0.70 U	0.70	1.8	1
10138	Pyrene	129-00-0	0.70 U	0.70	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	0.35 U	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,500	6.37	21.1	1
07914	Boron	7440-42-8	0.379 U	0.379	5.26	1
01650	Calcium	7440-70-2	3,680	2.63	21.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	22,700	2.75	21.1	1
01656	Lithium	7439-93-2	23.1	0.65	2.1	1
01657	Magnesium	7439-95-4	4,390	0.463	10.5	1
06958	Manganese	7439-96-5	321	0.0379	0.526	1
10145	Phosphorus	7723-14-0	472	0.368	10.5	1
01662	Potassium	7440-09-7	2,470	11.9	52.6	1
01667	Sodium	7440-23-5	63.9 J	6.26	105	1
07968	Strontium	7440-24-6	7.27	0.0263	0.526	1
06969	Tin	7440-31-5	3.57 J	0.337	10.5	1
06970	Titanium	7440-32-6	1,190	0.0747	1.05	1
10146	Zirconium	7440-67-7	2.17 J	0.484	5.26	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0771 U	0.0771	0.208	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.63	0.0834	0.417	2
06126	Barium	7440-39-3	87.0	0.110	0.417	2
06127	Beryllium	7440-41-7	0.599	0.0167	0.104	2
06128	Cadmium	7440-43-9	0.0592 J	0.0459	0.104	2
06131	Chromium	7440-47-3	13.9	0.125	0.417	2
06132	Cobalt	7440-48-4	7.70	0.0208	0.104	2
06133	Copper	7440-50-8	7.40	0.0834	0.417	2
06135	Lead	7439-92-1	5.09	0.0106	0.208	2
06138	Molybdenum	7439-98-7	0.331	0.0521	0.104	2
06139	Nickel	7440-02-0	8.55	0.104	0.417	2
06141	Selenium	7782-49-2	0.107 J	0.0604	0.417	2
06142	Silver	7440-22-4	0.0148 U	0.0148	0.104	2
06145	Thallium	7440-28-0	0.288	0.0313	0.104	2
06148	Vanadium	7440-62-2	31.6	0.0229	0.104	2
06149	Zinc	7440-66-6	67.2	0.584	3.13	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0069 U	0.0069	0.0985	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.85 U	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry SW-846 9045C modified Std. Units Std. Units Std. Units						
00394	17a pH by 9045C	n.a.	7.91	0.0100	0.0100	1
Wet Chemistry EPA 160.3 modified % % %						
11624	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 09:57	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 19:51	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:39	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 04:58	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 10:58	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488950
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01BKG

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 10:58	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 10:58	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 10:58	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:24	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:14	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 12:31	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:27	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,500	18	180	1
04688	Acenaphthylene	208-96-8	1,700	18	180	1
04688	Aniline	62-53-3	1,100	180	530	1
04688	Anthracene	120-12-7	1,600	18	180	1
04688	Benziidine	92-87-5	1,300	J 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,500	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,700	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,700	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,600	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	1,500	180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	1,600	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,600	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,600	18	180	1
04688	Carbazole	86-74-8	1,600	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	35	180	1
04688	4-Chloroaniline	106-47-8	940	70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,500	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,400	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,200	18	180	1
04688	2-Chlorophenol	95-57-8	1,500	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,600	35	180	1
04688	Chrysene	218-01-9	1,500	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,600	18	180	1
04688	Dibenzofuran	132-64-9	1,500	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,400	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,400	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,400	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	870	110	350	1
04688	2,4-Dichlorophenol	120-83-2	1,600	18	180	1
04688	Diethylphthalate	84-66-2	1,600	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,500	35	180	1
04688	3,5-Dimethylphenol	108-68-9	1,600	35	180	1
04688	Dimethylphthalate	131-11-3	1,600	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	870	180	530	1
04688	2,4-Dinitrophenol	51-28-5	950	J 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,600	35	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,600	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,500	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,500	18	350	1
04688	Fluoranthene	206-44-0	1,700	18	180	1
04688	Fluorene	86-73-7	1,600	18	180	1
04688	Hexachlorobenzene	118-74-1	1,600	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,400	70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	2,700	180	530	1
04688	Hexachloroethane	67-72-1	1,400	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,600	18	180	1
04688	Isophorone	78-59-1	1,500	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,400	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,500	18	180	1
04688	2-Methylphenol	95-48-7	1,600	35	180	1
04688	4-Methylphenol	106-44-5	1,500	35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,500	18	180	1
04688	2-Nitroaniline	88-74-4	1,600	18	180	1
04688	3-Nitroaniline	99-09-2	1,500	35	180	1
04688	4-Nitroaniline	100-01-6	1,100	70	180	1
04688	Nitrobenzene	98-95-3	1,500	18	180	1
04688	2-Nitrophenol	88-75-5	1,500	18	180	1
04688	4-Nitrophenol	100-02-7	1,300	180	530	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,800	18	180	1
04688	Pentachlorophenol	87-86-5	1,400	180	530	1
04688	Phenanthrene	85-01-8	1,600	18	180	1
04688	Phenol	108-95-2	1,500	18	180	1
04688	Pyrene	129-00-0	1,600	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,500	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,600	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,600	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.70	1.7	1
10138	Acenaphthylene	208-96-8	35	0.35	1.7	1
10138	Anthracene	120-12-7	37	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	36	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	37	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	36	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	34	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	34	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	38	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	43	6.3	19	1
10138	Chrysene	218-01-9	36	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	37	0.70	1.7	1
10138	Diethylphthalate	84-66-2	40	6.3	19	1
10138	Dimethylphthalate	131-11-3	37	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	44	6.3	19	1
10138	Fluoranthene	206-44-0	38	0.70	1.7	1
10138	Fluorene	86-73-7	37	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	37	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.70	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.70	1.7	1
10138	Naphthalene	91-20-3	32	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	32	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	39	6.3	19	1
10138	Phenanthrene	85-01-8	35	0.70	1.7	1
10138	Pyrene	129-00-0	36	0.70	1.7	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	11	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	13	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	13,500	6.18	20.4	1
07914	Boron	7440-42-8	200	0.368	5.11	1
01650	Calcium	7440-70-2	4,170	2.55	20.4	1
01654	Iron	7439-89-6	22,200	2.67	20.4	1
01656	Lithium	7439-93-2	123	0.63	2.0	1
01657	Magnesium	7439-95-4	4,540	0.450	10.2	1
06958	Manganese	7439-96-5	359	0.0368	0.511	1
10145	Phosphorus	7723-14-0	561	0.358	10.2	1
01662	Potassium	7440-09-7	3,500	11.5	51.1	1
01667	Sodium	7440-23-5	1,060	6.08	102	1
07968	Strontium	7440-24-6	104	0.0255	0.511	1
06969	Tin	7440-31-5	390	0.327	10.2	1
06970	Titanium	7440-32-6	1,380	0.0726	1.02	1
10146	Zirconium	7440-67-7	104	0.470	5.11	1
SW-846 6020						
06124	Antimony	7440-36-0	0.413	0.0749	0.202	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.47	0.0810	0.405	2
06126	Barium	7440-39-3	92.4	0.107	0.405	2
06127	Beryllium	7440-41-7	1.38	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.08	0.0445	0.101	2
06131	Chromium	7440-47-3	24.5	0.121	0.405	2
06132	Cobalt	7440-48-4	62.5	0.0202	0.101	2
06133	Copper	7440-50-8	18.1	0.0810	0.405	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	8.42	0.0103	0.202	2
06138	Molybdenum	7439-98-7	10.5	0.0506	0.101	2
06139	Nickel	7440-02-0	18.7	0.101	0.405	2
06141	Selenium	7782-49-2	2.14	0.0587	0.405	2
06142	Silver	7440-22-4	10.9	0.0144	0.101	2
06145	Thallium	7440-28-0	0.664	0.0304	0.101	2
06148	Vanadium	7440-62-2	42.8	0.0223	0.101	2
06149	Zinc	7440-66-6	75.0	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.173	0.0071	0.101	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	10.2	0.83	1.0	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	585	9.5	31.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	45.4	1.1	5.3	5
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 10:21	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 18:48	Dale R Stoneroad	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 20:58	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488951
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MS

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:09	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:17	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:17	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:17	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:17	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:30	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:40	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 13:19	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 10:34	Elyse P Brunstetter	5
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 5

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Acenaphthene	83-32-9	1,600	18	180	1
04688	Acenaphthylene	208-96-8	1,800	18	180	1
04688	Aniline	62-53-3	980	180	530	1
04688	Anthracene	120-12-7	1,700	18	180	1
04688	Benziidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzo(a)anthracene	56-55-3	1,600	18	180	1
04688	Benzo(a)pyrene	50-32-8	1,700	18	180	1
04688	Benzo(b)fluoranthene	205-99-2	1,900	18	180	1
04688	Benzo(g,h,i)perylene	191-24-2	1,600	18	180	1
04688	Benzo(k)fluoranthene	207-08-9	1,700	18	180	1
04688	Benzoic acid	65-85-0	180	U 180	530	1
04688	Benzyl alcohol	100-51-6	1,600	180	530	1
04688	4-Bromophenyl-phenylether	101-55-3	1,600	18	180	1
04688	Butylbenzylphthalate	85-68-7	1,600	18	180	1
04688	Di-n-butylphthalate	84-74-2	1,700	18	180	1
04688	Carbazole	86-74-8	1,600	18	180	1
04688	4-Chloro-3-methylphenol	59-50-7	1,600	35	180	1
04688	4-Chloroaniline	106-47-8	850	70	180	1
04688	bis(2-Chloroethoxy)methane	111-91-1	1,500	18	180	1
04688	bis(2-Chloroethyl)ether	111-44-4	1,600	18	180	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	1,500	18	180	1
04688	2-Chloronaphthalene	91-58-7	1,300	18	180	1
04688	2-Chlorophenol	95-57-8	1,600	18	180	1
04688	4-Chlorophenyl-phenylether	7005-72-3	1,700	35	180	1
04688	Chrysene	218-01-9	1,600	18	180	1
04688	Dibenz(a,h)anthracene	53-70-3	1,600	18	180	1
04688	Dibenzofuran	132-64-9	1,600	18	180	1
04688	1,2-Dichlorobenzene	95-50-1	1,500	18	180	1
04688	1,3-Dichlorobenzene	541-73-1	1,500	18	180	1
04688	1,4-Dichlorobenzene	106-46-7	1,500	18	180	1
04688	3,3'-Dichlorobenzidine	91-94-1	820	110	350	1
04688	2,4-Dichlorophenol	120-83-2	1,700	18	180	1
04688	Diethylphthalate	84-66-2	1,700	18	180	1
04688	2,4-Dimethylphenol	105-67-9	1,600	35	180	1
04688	3,5-Dimethylphenol	108-68-9	1,700	35	180	1
04688	Dimethylphthalate	131-11-3	1,600	18	180	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	670	180	530	1
04688	2,4-Dinitrophenol	51-28-5	720	J 350	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	1,700	35	180	1
04688	2,6-Dinitrotoluene	606-20-2	1,700	18	180	1
04688	1,2-Diphenylhydrazine	122-66-7	1,600	18	180	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	1,600	18	350	1
04688	Fluoranthene	206-44-0	1,700	18	180	1
04688	Fluorene	86-73-7	1,700	18	180	1
04688	Hexachlorobenzene	118-74-1	1,600	18	180	1
04688	Hexachlorobutadiene	87-68-3	1,600	70	180	1
04688	Hexachlorocyclopentadiene	77-47-4	2,900	180	530	1
04688	Hexachloroethane	67-72-1	1,500	18	180	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	1,600	18	180	1
04688	Isophorone	78-59-1	1,500	18	180	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1-Methylnaphthalene	90-12-0	1,500	18	180	1
04688	2-Methylnaphthalene	91-57-6	1,600	18	180	1
04688	2-Methylphenol	95-48-7	1,600	35	180	1
04688	4-Methylphenol	106-44-5	1,500	35	180	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	Naphthalene	91-20-3	1,600	18	180	1
04688	2-Nitroaniline	88-74-4	1,700	18	180	1
04688	3-Nitroaniline	99-09-2	1,600	35	180	1
04688	4-Nitroaniline	100-01-6	1,100	70	180	1
04688	Nitrobenzene	98-95-3	1,600	18	180	1
04688	2-Nitrophenol	88-75-5	1,600	18	180	1
04688	4-Nitrophenol	100-02-7	1,400	180	530	1
04688	N-Nitrosodimethylamine	62-75-9	1,400	35	180	1
04688	N-Nitroso-di-n-propylamine	621-64-7	1,400	18	180	1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	18	180	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Di-n-octylphthalate	117-84-0	1,800	18	180	1
04688	Pentachlorophenol	87-86-5	1,300	180	530	1
04688	Phenanthrene	85-01-8	1,600	18	180	1
04688	Phenol	108-95-2	1,500	18	180	1
04688	Pyrene	129-00-0	1,600	18	180	1
04688	1,2,4-Trichlorobenzene	120-82-1	1,600	18	180	1
04688	2,4,5-Trichlorophenol	95-95-4	1,700	35	180	1
04688	2,4,6-Trichlorophenol	88-06-2	1,700	35	180	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	34	0.70	1.7	1
10138	Acenaphthylene	208-96-8	35	0.35	1.7	1
10138	Anthracene	120-12-7	35	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	34	0.70	1.7	1
10138	Benzo(a)pyrene	50-32-8	35	0.70	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	34	0.70	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	32	0.70	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	33	0.70	1.7	1
10138	Butylbenzylphthalate	85-68-7	40	6.3	19	1
10138	Di-n-butylphthalate	84-74-2	42	6.3	19	1
10138	Chrysene	218-01-9	35	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	34	0.70	1.7	1
10138	Diethylphthalate	84-66-2	38	6.3	19	1
10138	Dimethylphthalate	131-11-3	37	6.3	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	45	6.3	19	1
10138	Fluoranthene	206-44-0	37	0.70	1.7	1
10138	Fluorene	86-73-7	35	0.70	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	33	0.70	1.7	1
10138	1-Methylnaphthalene	90-12-0	31	0.70	1.7	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
10138	2-Methylnaphthalene	91-57-6	30	0.70	1.7	1
10138	Naphthalene	91-20-3	31	0.70	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	33	0.70	1.7	1
10138	Di-n-octylphthalate	117-84-0	38	6.3	19	1
10138	Phenanthrene	85-01-8	34	0.70	1.7	1
10138	Pyrene	129-00-0	34	0.70	1.7	1
Pesticides/PCBs SW-846 8082						
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.5	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.5	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.5	1
10225	PCB-1016	12674-11-2	13	0.35	1.8	1
10225	PCB-1221	11104-28-2	0.35 U	0.35	1.8	1
10225	PCB-1232	11141-16-5	0.35 U	0.35	1.8	1
10225	PCB-1242	53469-21-9	0.35 U	0.35	1.8	1
10225	PCB-1248	12672-29-6	0.35 U	0.35	1.8	1
10225	PCB-1254	11097-69-1	0.35 U	0.35	1.8	1
10225	PCB-1260	11096-82-5	16	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.35 U	0.35	1.8	1
10225	PCB-1268	11100-14-4	0.35 U	0.35	1.8	1
Metals SW-846 6010B						
01643	Aluminum	7429-90-5	14,000	6.12	20.2	1
07914	Boron	7440-42-8	198	0.364	5.06	1
01650	Calcium	7440-70-2	4,260	2.53	20.2	1
01654	Iron	7439-89-6	23,800	2.64	20.2	1
01656	Lithium	7439-93-2	122	0.63	2.0	1
01657	Magnesium	7439-95-4	4,710	0.445	10.1	1
06958	Manganese	7439-96-5	343	0.0364	0.506	1
10145	Phosphorus	7723-14-0	580	0.354	10.1	1
01662	Potassium	7440-09-7	3,540	11.4	50.6	1
01667	Sodium	7440-23-5	1,040	6.02	101	1
07968	Strontium	7440-24-6	104	0.0253	0.506	1
06969	Tin	7440-31-5	387	0.324	10.1	1
06970	Titanium	7440-32-6	1,430	0.0719	1.01	1
10146	Zirconium	7440-67-7	103	0.466	5.06	1
SW-846 6020						
06124	Antimony	7440-36-0	0.389	0.0749	0.202	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	9.39	0.0810	0.405	2
06126	Barium	7440-39-3	98.0	0.107	0.405	2
06127	Beryllium	7440-41-7	1.44	0.0162	0.101	2
06128	Cadmium	7440-43-9	1.14	0.0445	0.101	2
06131	Chromium	7440-47-3	25.7	0.121	0.405	2
06132	Cobalt	7440-48-4	64.3	0.0202	0.101	2
06133	Copper	7440-50-8	19.1	0.0810	0.405	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06135	Lead	7439-92-1	8.44	0.0103	0.202	2
06138	Molybdenum	7439-98-7	10.7	0.0506	0.101	2
06139	Nickel	7440-02-0	19.4	0.101	0.405	2
06141	Selenium	7782-49-2	2.49	0.0587	0.405	2
06142	Silver	7440-22-4	11.0	0.0144	0.101	2
06145	Thallium	7440-28-0	0.673	0.0304	0.101	2
06148	Vanadium	7440-62-2	44.6	0.0223	0.101	2
06149	Zinc	7440-66-6	79.7	0.567	3.04	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.174	0.0072	0.102	1
Wet Chemistry						
	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 10:45	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 19:20	Dale R Stoneroad	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:16	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488952
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01MSD

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:13	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:20	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:20	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:20	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:20	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:31	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,700	6.24	20.6	1
07914	Boron	7440-42-8	0.372 U	0.372	5.16	1
01650	Calcium	7440-70-2	5,060	2.58	20.6	1
01654	Iron	7439-89-6	23,000	2.69	20.6	1
01656	Lithium	7439-93-2	23.0	0.64	2.1	1
01657	Magnesium	7439-95-4	4,400	0.454	10.3	1
06958	Manganese	7439-96-5	348	0.0372	0.516	1
10145	Phosphorus	7723-14-0	475	0.361	10.3	1
01662	Potassium	7440-09-7	2,280	11.7	51.6	1
01667	Sodium	7440-23-5	64.4 J	6.14	103	1
07968	Strontium	7440-24-6	8.19	0.0258	0.516	1
06969	Tin	7440-31-5	3.42 J	0.330	10.3	1
06970	Titanium	7440-32-6	1,150	0.0733	1.03	1
10146	Zirconium	7440-67-7	2.77 J	0.475	5.16	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0764 U	0.0764	0.206	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.39	0.0826	0.413	2
06126	Barium	7440-39-3	91.4	0.109	0.413	2
06127	Beryllium	7440-41-7	0.701	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.0650 J	0.0454	0.103	2
06131	Chromium	7440-47-3	14.2	0.124	0.413	2
06132	Cobalt	7440-48-4	7.53	0.0206	0.103	2
06133	Copper	7440-50-8	7.79	0.0826	0.413	2
06135	Lead	7439-92-1	5.38	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.293	0.0516	0.103	2
06139	Nickel	7440-02-0	9.12	0.103	0.413	2
06141	Selenium	7782-49-2	0.133 J	0.0599	0.413	2
06142	Silver	7440-22-4	0.0147 U	0.0147	0.103	2
06145	Thallium	7440-28-0	0.291	0.0310	0.103	2
06148	Vanadium	7440-62-2	34.8	0.0227	0.103	2
06149	Zinc	7440-66-6	74.8	0.578	3.10	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0071 U	0.0071	0.100	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.2	0.85	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.5 U	9.5	31.6	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.93	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11626	28a Moisture Content by 160.3	n.a.	5.3	0.50	0.50	1
The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:05	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:04	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:04	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:04	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0DUP Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488953
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01DUP

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:04	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:26	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:27	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 12:55	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 11:32	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11626	28a Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-019-SA8S-SB-4.0-5.0RL MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488954
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01RLR

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	1.6 J	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	2.0	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:35	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 1

Sample Description: SL-019-SA8S-SB-4.0-5.0RL LCS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488955
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9201 SDG#: DE292-01RLQ

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.3	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.3	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.3	1
10225	PCB-1016	12674-11-2	1.6 J	0.33	1.7	1
10225	PCB-1221	11104-28-2	0.33 U	0.33	1.7	1
10225	PCB-1232	11141-16-5	0.33 U	0.33	1.7	1
10225	PCB-1242	53469-21-9	0.33 U	0.33	1.7	1
10225	PCB-1248	12672-29-6	0.33 U	0.33	1.7	1
10225	PCB-1254	11097-69-1	0.33 U	0.33	1.7	1
10225	PCB-1260	11096-82-5	1.9	0.39	1.7	1
10225	PCB-1262	37324-23-5	0.33 U	0.33	1.7	1
10225	PCB-1268	11100-14-4	0.33 U	0.33	1.7	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 21:54	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,800	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	38	U 38	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	38	U 38	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	380	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	38	U 38	190	1
04688	3,5-Dimethylphenol	108-68-9	38	U 38	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	380	U 380	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	38	U 38	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Fluoranthene	206-44-0	49	J 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	38	U 38	190	1
04688	4-Methylphenol	106-44-5	38	U 38	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	38	U 38	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 5

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenanthrene	85-01-8	52	J 19	190	1
04688	Phenol	108-95-2	19	U 19	190	1
04688	Pyrene	129-00-0	35	J 19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	38	U 38	190	1
04688	2,4,6-Trichlorophenol	88-06-2	38	U 38	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.75 U	0.75	1.9	1
10138	Acenaphthylene	208-96-8	0.38 U	0.38	1.9	1
10138	Anthracene	120-12-7	0.38 U	0.38	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.75 U	0.75	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.75 U	0.75	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.75 U	0.75	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.75 U	0.75	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.75 U	0.75	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.8 U	6.8	20	1
10138	Di-n-butylphthalate	84-74-2	6.8 U	6.8	20	1
10138	Chrysene	218-01-9	0.38 U	0.38	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.75 U	0.75	1.9	1
10138	Diethylphthalate	84-66-2	6.8 U	6.8	20	1
10138	Dimethylphthalate	131-11-3	6.8 U	6.8	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.8 U	6.8	20	1
10138	Fluorene	86-73-7	0.75 U	0.75	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.75 U	0.75	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.75 U	0.75	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.75 U	0.75	1.9	1
10138	Naphthalene	91-20-3	0.75 U	0.75	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.75 U	0.75	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.8 U	6.8	20	1
Perchlorate	SW-846 6850 1/2007	ug/kg	ug/kg	ug/kg		
06557	6a Perchlorate EPA 6850	14797-73-0	2.4 U	2.4	5.6	1
Pesticides/PCBs	SW-846 8082	ug/kg	ug/kg	ug/kg		
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44 U	0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	21,100	6.77	22.4	1
07914	Boron	7440-42-8	8.36	0.403	5.59	1
01650	Calcium	7440-70-2	101,000	14.0	112	5
01654	Iron	7439-89-6	26,000	2.92	22.4	1
01656	Lithium	7439-93-2	21.3	0.69	2.2	1
01657	Magnesium	7439-95-4	7,170	0.492	11.2	1
06958	Manganese	7439-96-5	357	0.0403	0.559	1
10145	Phosphorus	7723-14-0	576	0.392	11.2	1
01662	Potassium	7440-09-7	3,670	12.6	55.9	1
01667	Sodium	7440-23-5	113	6.66	112	1
07968	Strontium	7440-24-6	128	0.0280	0.559	1
06969	Tin	7440-31-5	3.12 J	0.358	11.2	1
06970	Titanium	7440-32-6	922	0.0794	1.12	1
10146	Zirconium	7440-67-7	4.69 J	0.515	5.59	1
SW-846 6020						
			mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.135 J	0.0820	0.222	2
Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.						
06125	Arsenic	7440-38-2	7.01	0.0886	0.443	2
06126	Barium	7440-39-3	90.2	0.117	0.443	2
06127	Beryllium	7440-41-7	0.830	0.0177	0.111	2
06128	Cadmium	7440-43-9	0.322	0.0487	0.111	2
06131	Chromium	7440-47-3	33.5	0.133	0.443	2
06132	Cobalt	7440-48-4	10.2	0.0222	0.111	2
06133	Copper	7440-50-8	21.2	0.0886	0.443	2
06135	Lead	7439-92-1	11.2	0.0113	0.222	2
06138	Molybdenum	7439-98-7	0.374	0.0554	0.111	2
06139	Nickel	7440-02-0	20.5	0.111	0.443	2
06141	Selenium	7782-49-2	0.217 J	0.0643	0.443	2
06142	Silver	7440-22-4	0.0273 J	0.0157	0.111	2
06145	Thallium	7440-28-0	0.285	0.0332	0.111	2
06148	Vanadium	7440-62-2	56.9	0.0244	0.111	2
06149	Zinc	7440-66-6	61.3	0.620	3.32	2
SW-846 7471A						
			mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	0.94 J	0.91	1.1	1
EPA 314.0						
			ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.2 U	10.2	33.9	1
SW-846 7199						
			mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.32 J	0.23	1.1	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.38	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	11.5	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 11:34	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 20:23	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
06557	6a Perchlorate EPA 6850	SW-846 6850 1/2007	1	113410017A	12/09/2011 14:57	Richard A Shober	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:12	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
06568	Perchlorate Soil Prep	SW-846 6850 1/2007	1	113410017A	12/08/2011 08:55	Maria Davenport	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:12	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:20	Tara L Snyder	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488956
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9202 SDG#: DE292-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:29	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:29	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:29	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:07	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:29	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:32	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 19:53	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 13:43	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 11:46	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	22,800	6.67	22.1	1
07914	Boron	7440-42-8	6.80	0.397	5.51	1
01650	Calcium	7440-70-2	80,900	13.8	110	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	27,500	2.88	22.1	1
01656	Lithium	7439-93-2	25.0	0.68	2.2	1
01657	Magnesium	7439-95-4	6,900	0.485	11.0	1
06958	Manganese	7439-96-5	394	0.0397	0.551	1
10145	Phosphorus	7723-14-0	432	0.386	11.0	1
01662	Potassium	7440-09-7	3,140	12.5	55.1	1
01667	Sodium	7440-23-5	142	6.56	110	1
07968	Strontium	7440-24-6	91.0	0.0276	0.551	1
06969	Tin	7440-31-5	2.87 J	0.353	11.0	1
06970	Titanium	7440-32-6	1,020	0.0783	1.10	1
10146	Zirconium	7440-67-7	5.66	0.507	5.51	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.151 J	0.0808	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	7.19	0.0873	0.437	2
06126	Barium	7440-39-3	99.0	0.116	0.437	2
06127	Beryllium	7440-41-7	0.857	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.350	0.0480	0.109	2
06131	Chromium	7440-47-3	36.8	0.131	0.437	2
06132	Cobalt	7440-48-4	12.7	0.0218	0.109	2
06133	Copper	7440-50-8	20.3	0.0873	0.437	2
06135	Lead	7439-92-1	11.4	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.434	0.0546	0.109	2
06139	Nickel	7440-02-0	22.7	0.109	0.437	2
06141	Selenium	7782-49-2	0.206 J	0.0633	0.437	2
06142	Silver	7440-22-4	0.0297 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.302	0.0328	0.109	2
06148	Vanadium	7440-62-2	61.9	0.0240	0.109	2
06149	Zinc	7440-66-6	65.6	0.611	3.28	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0074 U	0.0074	0.105	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	4.8	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.24 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.37	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 11:58	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 20:54	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:31	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:32	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:31	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:32	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488957
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9203 SDG#: DE292-03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:32	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:32	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:09	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:32	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:34	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:07	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:05	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:01	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	75	U 75	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	37	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	75	U 75	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	75	U 75	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1
04688	Phenol	108-95-2	19	U 19	190	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	19	U 19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37	U 37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37	U 37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.74	U 0.74	1.9	1
10138	Acenaphthylene	208-96-8	0.37	U 0.37	1.9	1
10138	Anthracene	120-12-7	0.37	U 0.37	1.9	1
10138	Benzo(a)anthracene	56-55-3	0.74	U 0.74	1.9	1
10138	Benzo(a)pyrene	50-32-8	0.74	U 0.74	1.9	1
10138	Benzo(b)fluoranthene	205-99-2	0.74	U 0.74	1.9	1
10138	Benzo(g,h,i)perylene	191-24-2	0.74	U 0.74	1.9	1
10138	Benzo(k)fluoranthene	207-08-9	0.74	U 0.74	1.9	1
10138	Butylbenzylphthalate	85-68-7	6.7	U 6.7	20	1
10138	Di-n-butylphthalate	84-74-2	6.7	U 6.7	20	1
10138	Chrysene	218-01-9	0.37	U 0.37	1.9	1
10138	Dibenz(a,h)anthracene	53-70-3	0.74	U 0.74	1.9	1
10138	Diethylphthalate	84-66-2	6.7	U 6.7	20	1
10138	Dimethylphthalate	131-11-3	6.7	U 6.7	20	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.7	U 6.7	20	1
10138	Fluoranthene	206-44-0	0.74	U 0.74	1.9	1
10138	Fluorene	86-73-7	0.74	U 0.74	1.9	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.74	U 0.74	1.9	1
10138	1-Methylnaphthalene	90-12-0	0.74	U 0.74	1.9	1
10138	2-Methylnaphthalene	91-57-6	0.74	U 0.74	1.9	1
10138	Naphthalene	91-20-3	0.74	U 0.74	1.9	1
10138	N-Nitrosodimethylamine	62-75-9	0.74	U 0.74	1.9	1
10138	Di-n-octylphthalate	117-84-0	6.7	U 6.7	20	1
10138	Phenanthrene	85-01-8	0.74	U 0.74	1.9	1
10138	Pyrene	129-00-0	0.74	U 0.74	1.9	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1	U 1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1	U 1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1	U 1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37	U 0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37	U 0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37	U 0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37	U 0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37	U 0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37	U 0.37	1.9	1
10225	PCB-1260	11096-82-5	0.44	U 0.44	1.9	1
10225	PCB-1262	37324-23-5	0.37	U 0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37	U 0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,200	6.57	21.7	1
07914	Boron	7440-42-8	7.84	0.391	5.43	1
01650	Calcium	7440-70-2	116,000	13.6	109	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	23,300	2.83	21.7	1
01656	Lithium	7439-93-2	22.3	0.67	2.2	1
01657	Magnesium	7439-95-4	6,240	0.478	10.9	1
06958	Manganese	7439-96-5	403	0.0391	0.543	1
10145	Phosphorus	7723-14-0	502	0.380	10.9	1
01662	Potassium	7440-09-7	3,220	12.3	54.3	1
01667	Sodium	7440-23-5	200	6.46	109	1
07968	Strontium	7440-24-6	98.9	0.0271	0.543	1
06969	Tin	7440-31-5	2.93 J	0.348	10.9	1
06970	Titanium	7440-32-6	932	0.0771	1.09	1
10146	Zirconium	7440-67-7	4.14 J	0.500	5.43	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.128 J	0.0796	0.215	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	6.28	0.0860	0.430	2
06126	Barium	7440-39-3	107	0.114	0.430	2
06127	Beryllium	7440-41-7	0.906	0.0172	0.108	2
06128	Cadmium	7440-43-9	0.330	0.0473	0.108	2
06131	Chromium	7440-47-3	36.0	0.129	0.430	2
06132	Cobalt	7440-48-4	10.5	0.0215	0.108	2
06133	Copper	7440-50-8	17.2	0.0860	0.430	2
06135	Lead	7439-92-1	9.62	0.0110	0.215	2
06138	Molybdenum	7439-98-7	0.396	0.0538	0.108	2
06139	Nickel	7440-02-0	20.5	0.108	0.430	2
06141	Selenium	7782-49-2	0.206 J	0.0624	0.430	2
06142	Silver	7440-22-4	0.0356 J	0.0153	0.108	2
06145	Thallium	7440-28-0	0.324	0.0323	0.108	2
06148	Vanadium	7440-62-2	61.7	0.0237	0.108	2
06149	Zinc	7440-66-6	60.6	0.602	3.23	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0077 U	0.0077	0.109	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	3.0	0.89	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.1 U	10.1	33.6	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.28 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.45	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 12:23	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 21:26	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 22:49	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:40	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:35	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:35	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 5 of 5

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488958
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9204 SDG#: DE292-04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:35	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:35	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:11	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:35	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:35	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:46	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:29	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	2	11341243202A	12/10/2011 12:23	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	190	U 190	560	1
04688	Benzidine	92-87-5	1,300	U 1,300	3,700	1
04688	Benzoic acid	65-85-0	190	U 190	560	1
04688	Benzyl alcohol	100-51-6	190	U 190	560	1
04688	4-Bromophenyl-phenylether	101-55-3	19	U 19	190	1
04688	Carbazole	86-74-8	19	U 19	190	1
04688	4-Chloro-3-methylphenol	59-50-7	37	U 37	190	1
04688	4-Chloroaniline	106-47-8	74	U 74	190	1
04688	bis(2-Chloroethoxy)methane	111-91-1	19	U 19	190	1
04688	bis(2-Chloroethyl)ether	111-44-4	19	U 19	190	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	19	U 19	190	1
04688	2-Chloronaphthalene	91-58-7	19	U 19	190	1
04688	2-Chlorophenol	95-57-8	19	U 19	190	1
04688	4-Chlorophenyl-phenylether	7005-72-3	37	U 37	190	1
04688	Dibenzofuran	132-64-9	19	U 19	190	1
04688	1,2-Dichlorobenzene	95-50-1	19	U 19	190	1
04688	1,3-Dichlorobenzene	541-73-1	19	U 19	190	1
04688	1,4-Dichlorobenzene	106-46-7	19	U 19	190	1
04688	3,3'-Dichlorobenzidine	91-94-1	110	U 110	370	1
04688	2,4-Dichlorophenol	120-83-2	19	U 19	190	1
04688	2,4-Dimethylphenol	105-67-9	37	U 37	190	1
04688	3,5-Dimethylphenol	108-68-9	37	U 37	190	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	190	U 190	560	1
04688	2,4-Dinitrophenol	51-28-5	370	U 370	1,100	1
04688	2,4-Dinitrotoluene	121-14-2	19	U 37	190	1
04688	2,6-Dinitrotoluene	606-20-2	19	U 19	190	1
04688	1,2-Diphenylhydrazine	122-66-7	19	U 19	190	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	22	J 19	370	1
04688	Hexachlorobenzene	118-74-1	19	U 19	190	1
04688	Hexachlorobutadiene	87-68-3	74	U 74	190	1
04688	Hexachlorocyclopentadiene	77-47-4	190	U 190	560	1
04688	Hexachloroethane	67-72-1	19	U 19	190	1
04688	Isophorone	78-59-1	19	U 19	190	1
04688	2-Methylphenol	95-48-7	37	U 37	190	1
04688	4-Methylphenol	106-44-5	37	U 37	190	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	19	U 19	190	1
04688	3-Nitroaniline	99-09-2	37	U 37	190	1
04688	4-Nitroaniline	100-01-6	74	U 74	190	1
04688	Nitrobenzene	98-95-3	19	U 19	190	1
04688	2-Nitrophenol	88-75-5	19	U 19	190	1
04688	4-Nitrophenol	100-02-7	190	U 190	560	1
04688	N-Nitroso-di-n-propylamine	621-64-7	19	U 19	190	1
04688	N-Nitrosodiphenylamine	86-30-6	19	U 19	190	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	190	U 190	560	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 2 of 5

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Phenol	108-95-2	19 U	19	190	1
04688	1,2,4-Trichlorobenzene	120-82-1	19 U	19	190	1
04688	2,4,5-Trichlorophenol	95-95-4	37 U	37	190	1
04688	2,4,6-Trichlorophenol	88-06-2	37 U	37	190	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.73 U	0.73	1.8	1
10138	Acenaphthylene	208-96-8	0.37 U	0.37	1.8	1
10138	Anthracene	120-12-7	0.37 U	0.37	1.8	1
10138	Benzo(a)anthracene	56-55-3	0.73 U	0.73	1.8	1
10138	Benzo(a)pyrene	50-32-8	0.73 U	0.73	1.8	1
10138	Benzo(b)fluoranthene	205-99-2	0.73 U	0.73	1.8	1
10138	Benzo(g,h,i)perylene	191-24-2	0.73 U	0.73	1.8	1
10138	Benzo(k)fluoranthene	207-08-9	0.73 U	0.73	1.8	1
10138	Butylbenzylphthalate	85-68-7	6.6 U	6.6	20	1
10138	Di-n-butylphthalate	84-74-2	6.6 U	6.6	20	1
10138	Chrysene	218-01-9	0.37 U	0.37	1.8	1
10138	Dibenz(a,h)anthracene	53-70-3	0.73 U	0.73	1.8	1
10138	Diethylphthalate	84-66-2	6.6 U	6.6	20	1
10138	Dimethylphthalate	131-11-3	6.6 U	6.6	20	1
10138	Fluoranthene	206-44-0	0.73 U	0.73	1.8	1
10138	Fluorene	86-73-7	0.73 U	0.73	1.8	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.73 U	0.73	1.8	1
10138	1-Methylnaphthalene	90-12-0	0.73 U	0.73	1.8	1
10138	2-Methylnaphthalene	91-57-6	0.73 U	0.73	1.8	1
10138	Naphthalene	91-20-3	0.73 U	0.73	1.8	1
10138	N-Nitrosodimethylamine	62-75-9	0.73 U	0.73	1.8	1
10138	Di-n-octylphthalate	117-84-0	6.6 U	6.6	20	1
10138	Phenanthrene	85-01-8	0.73 U	0.73	1.8	1
10138	Pyrene	129-00-0	0.73 U	0.73	1.8	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.1 U	1.1	3.7	1
10225	Aroclor 5442	12642-23-8	1.1 U	1.1	3.7	1
10225	Aroclor 5460	11126-42-4	1.1 U	1.1	3.7	1
10225	PCB-1016	12674-11-2	0.37 U	0.37	1.9	1
10225	PCB-1221	11104-28-2	0.37 U	0.37	1.9	1
10225	PCB-1232	11141-16-5	0.37 U	0.37	1.9	1
10225	PCB-1242	53469-21-9	0.37 U	0.37	1.9	1
10225	PCB-1248	12672-29-6	0.37 U	0.37	1.9	1
10225	PCB-1254	11097-69-1	0.37 U	0.37	1.9	1
10225	PCB-1260	11096-82-5	0.43 U	0.43	1.9	1
10225	PCB-1262	37324-23-5	0.37 U	0.37	1.9	1
10225	PCB-1268	11100-14-4	0.37 U	0.37	1.9	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	20,700	6.54	21.6	1
07914	Boron	7440-42-8	6.42	0.389	5.41	1
01650	Calcium	7440-70-2	117,000	13.5	108	5

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	24,800	2.82	21.6	1
01656	Lithium	7439-93-2	22.9	0.67	2.2	1
01657	Magnesium	7439-95-4	6,190	0.476	10.8	1
06958	Manganese	7439-96-5	390	0.0389	0.541	1
10145	Phosphorus	7723-14-0	396	0.378	10.8	1
01662	Potassium	7440-09-7	2,500	12.2	54.1	1
01667	Sodium	7440-23-5	368	6.43	108	1
07968	Strontium	7440-24-6	92.6	0.0270	0.541	1
06969	Tin	7440-31-5	2.87 J	0.346	10.8	1
06970	Titanium	7440-32-6	1,030	0.0768	1.08	1
10146	Zirconium	7440-67-7	6.18	0.497	5.41	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.150 J	0.0808	0.218	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	8.32	0.0873	0.437	2
06126	Barium	7440-39-3	189	0.116	0.437	2
06127	Beryllium	7440-41-7	0.967	0.0175	0.109	2
06128	Cadmium	7440-43-9	0.472	0.0480	0.109	2
06131	Chromium	7440-47-3	45.7	0.131	0.437	2
06132	Cobalt	7440-48-4	14.7	0.0218	0.109	2
06133	Copper	7440-50-8	22.8	0.0873	0.437	2
06135	Lead	7439-92-1	12.6	0.0111	0.218	2
06138	Molybdenum	7439-98-7	0.680	0.0546	0.109	2
06139	Nickel	7440-02-0	28.5	0.109	0.437	2
06141	Selenium	7782-49-2	0.256 J	0.0633	0.437	2
06142	Silver	7440-22-4	0.0276 J	0.0155	0.109	2
06145	Thallium	7440-28-0	0.383	0.0328	0.109	2
06148	Vanadium	7440-62-2	78.9	0.0240	0.109	2
06149	Zinc	7440-66-6	74.5	0.611	3.28	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0107 J	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	5.4	0.90	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	10.0 U	10.0	33.4	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.26 J	0.22	1.1	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	8.66	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 12:56	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 21:57	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 23:08	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/09/2011 03:48	Tara L Snyder	5
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:39	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:38	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488959
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9205 SDG#: DE292-05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:38	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:38	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/13/2011 22:13	Parker D Lindstrom	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:38	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:36	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 20:59	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 15:53	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:30	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	Aniline	62-53-3	170	U 170	520	1
04688	Benzidine	92-87-5	1,200	U 1,200	3,500	1
04688	Benzoic acid	65-85-0	170	U 170	520	1
04688	Benzyl alcohol	100-51-6	170	U 170	520	1
04688	4-Bromophenyl-phenylether	101-55-3	17	U 17	170	1
04688	Carbazole	86-74-8	17	U 17	170	1
04688	4-Chloro-3-methylphenol	59-50-7	35	U 35	170	1
04688	4-Chloroaniline	106-47-8	70	U 70	170	1
04688	bis(2-Chloroethoxy)methane	111-91-1	17	U 17	170	1
04688	bis(2-Chloroethyl)ether	111-44-4	17	U 17	170	1
04688	bis(2-Chloroisopropyl)ether	39638-32-9	17	U 17	170	1
04688	2-Chloronaphthalene	91-58-7	17	U 17	170	1
04688	2-Chlorophenol	95-57-8	17	U 17	170	1
04688	4-Chlorophenyl-phenylether	7005-72-3	35	U 35	170	1
04688	Dibenzofuran	132-64-9	17	U 17	170	1
04688	1,2-Dichlorobenzene	95-50-1	17	U 17	170	1
04688	1,3-Dichlorobenzene	541-73-1	17	U 17	170	1
04688	1,4-Dichlorobenzene	106-46-7	17	U 17	170	1
04688	3,3'-Dichlorobenzidine	91-94-1	100	U 100	350	1
04688	2,4-Dichlorophenol	120-83-2	17	U 17	170	1
04688	2,4-Dimethylphenol	105-67-9	35	U 35	170	1
04688	3,5-Dimethylphenol	108-68-9	35	U 35	170	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	170	U 170	520	1
04688	2,4-Dinitrophenol	51-28-5	350	U 350	1,000	1
04688	2,4-Dinitrotoluene	121-14-2	35	U 35	170	1
04688	2,6-Dinitrotoluene	606-20-2	17	U 17	170	1
04688	1,2-Diphenylhydrazine	122-66-7	17	U 17	170	1
04688	Hexachlorobenzene	118-74-1	17	U 17	170	1
04688	Hexachlorobutadiene	87-68-3	70	U 70	170	1
04688	Hexachlorocyclopentadiene	77-47-4	170	U 170	520	1
04688	Hexachloroethane	67-72-1	17	U 17	170	1
04688	Isophorone	78-59-1	17	U 17	170	1
04688	2-Methylphenol	95-48-7	35	U 35	170	1
04688	4-Methylphenol	106-44-5	35	U 35	170	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
04688	2-Nitroaniline	88-74-4	17	U 17	170	1
04688	3-Nitroaniline	99-09-2	35	U 35	170	1
04688	4-Nitroaniline	100-01-6	70	U 70	170	1
04688	Nitrobenzene	98-95-3	17	U 17	170	1
04688	2-Nitrophenol	88-75-5	17	U 17	170	1
04688	4-Nitrophenol	100-02-7	170	U 170	520	1
04688	N-Nitroso-di-n-propylamine	621-64-7	17	U 17	170	1
04688	N-Nitrosodiphenylamine	86-30-6	17	U 17	170	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.					
04688	Pentachlorophenol	87-86-5	170	U 170	520	1
04688	Phenol	108-95-2	17	U 17	170	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C	ug/kg	ug/kg	ug/kg	
04688	1,2,4-Trichlorobenzene	120-82-1	17 U	17	170	1
04688	2,4,5-Trichlorophenol	95-95-4	35 U	35	170	1
04688	2,4,6-Trichlorophenol	88-06-2	35 U	35	170	1
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/kg	ug/kg	ug/kg	
10138	Acenaphthene	83-32-9	0.69 U	0.69	1.7	1
10138	Acenaphthylene	208-96-8	0.35 U	0.35	1.7	1
10138	Anthracene	120-12-7	0.35 U	0.35	1.7	1
10138	Benzo(a)anthracene	56-55-3	0.69 U	0.69	1.7	1
10138	Benzo(a)pyrene	50-32-8	0.69 U	0.69	1.7	1
10138	Benzo(b)fluoranthene	205-99-2	0.69 U	0.69	1.7	1
10138	Benzo(g,h,i)perylene	191-24-2	0.69 U	0.69	1.7	1
10138	Benzo(k)fluoranthene	207-08-9	0.69 U	0.69	1.7	1
10138	Butylbenzylphthalate	85-68-7	6.2 U	6.2	19	1
10138	Di-n-butylphthalate	84-74-2	6.2 U	6.2	19	1
10138	Chrysene	218-01-9	0.35 U	0.35	1.7	1
10138	Dibenz(a,h)anthracene	53-70-3	0.69 U	0.69	1.7	1
10138	Diethylphthalate	84-66-2	6.2 U	6.2	19	1
10138	Dimethylphthalate	131-11-3	6.2 U	6.2	19	1
10138	Bis(2-Ethylhexyl)phthalate	117-81-7	6.2 U	6.2	19	1
10138	Fluoranthene	206-44-0	0.69 U	0.69	1.7	1
10138	Fluorene	86-73-7	0.69 U	0.69	1.7	1
10138	Indeno(1,2,3-cd)pyrene	193-39-5	0.69 U	0.69	1.7	1
10138	1-Methylnaphthalene	90-12-0	0.69 U	0.69	1.7	1
10138	2-Methylnaphthalene	91-57-6	0.69 U	0.69	1.7	1
10138	Naphthalene	91-20-3	0.69 U	0.69	1.7	1
10138	N-Nitrosodimethylamine	62-75-9	0.69 U	0.69	1.7	1
10138	Di-n-octylphthalate	117-84-0	6.2 U	6.2	19	1
10138	Phenanthrene	85-01-8	0.69 U	0.69	1.7	1
10138	Pyrene	129-00-0	0.69 U	0.69	1.7	1
Pesticides/PCBs	SW-846 8082		ug/kg	ug/kg	ug/kg	
10225	Aroclor 5432	63496-31-1	1.0 U	1.0	3.4	1
10225	Aroclor 5442	12642-23-8	1.0 U	1.0	3.4	1
10225	Aroclor 5460	11126-42-4	1.0 U	1.0	3.4	1
10225	PCB-1016	12674-11-2	0.34 U	0.34	1.8	1
10225	PCB-1221	11104-28-2	0.34 U	0.34	1.8	1
10225	PCB-1232	11141-16-5	0.34 U	0.34	1.8	1
10225	PCB-1242	53469-21-9	0.34 U	0.34	1.8	1
10225	PCB-1248	12672-29-6	0.34 U	0.34	1.8	1
10225	PCB-1254	11097-69-1	0.34 U	0.34	1.8	1
10225	PCB-1260	11096-82-5	0.41 U	0.41	1.8	1
10225	PCB-1262	37324-23-5	0.34 U	0.34	1.8	1
10225	PCB-1268	11100-14-4	0.34 U	0.34	1.8	1
Metals	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01643	Aluminum	7429-90-5	11,000	6.22	20.6	1
07914	Boron	7440-42-8	0.370 U	0.370	5.14	1
01650	Calcium	7440-70-2	3,440	2.57	20.6	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metals						
	SW-846 6010B		mg/kg	mg/kg	mg/kg	
01654	Iron	7439-89-6	21,300	2.69	20.6	1
01656	Lithium	7439-93-2	21.2	0.64	2.1	1
01657	Magnesium	7439-95-4	4,090	0.453	10.3	1
06958	Manganese	7439-96-5	280	0.0370	0.514	1
10145	Phosphorus	7723-14-0	378	0.360	10.3	1
01662	Potassium	7440-09-7	2,080	11.6	51.4	1
01667	Sodium	7440-23-5	60.6 J	6.12	103	1
07968	Strontium	7440-24-6	7.31	0.0257	0.514	1
06969	Tin	7440-31-5	3.27 J	0.329	10.3	1
06970	Titanium	7440-32-6	1,120	0.0730	1.03	1
10146	Zirconium	7440-67-7	1.90 J	0.473	5.14	1
	SW-846 6020		mg/kg	mg/kg	mg/kg	
06124	Antimony	7440-36-0	0.0761 U	0.0761	0.206	2
	Due to the nature of the EPA Method 3050B digestion procedure for ICP-MS, the Laboratory Control Standard and Matrix Spike(s) may exhibit low recoveries for antimony.					
06125	Arsenic	7440-38-2	4.83	0.0823	0.411	2
06126	Barium	7440-39-3	63.6	0.109	0.411	2
06127	Beryllium	7440-41-7	0.475	0.0165	0.103	2
06128	Cadmium	7440-43-9	0.0453 U	0.0453	0.103	2
06131	Chromium	7440-47-3	10.2	0.123	0.411	2
06132	Cobalt	7440-48-4	5.17	0.0206	0.103	2
06133	Copper	7440-50-8	5.24	0.0823	0.411	2
06135	Lead	7439-92-1	3.61	0.0105	0.206	2
06138	Molybdenum	7439-98-7	0.230	0.0514	0.103	2
06139	Nickel	7440-02-0	5.96	0.103	0.411	2
06141	Selenium	7782-49-2	0.107 J	0.0597	0.411	2
06142	Silver	7440-22-4	0.0146 U	0.0146	0.103	2
06145	Thallium	7440-28-0	0.246	0.0309	0.103	2
06148	Vanadium	7440-62-2	25.5	0.0226	0.103	2
06149	Zinc	7440-66-6	52.8	0.576	3.09	2
	SW-846 7471A		mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0073 U	0.0073	0.104	1
Wet Chemistry						
	EPA 300.0		mg/kg	mg/kg	mg/kg	
07332	11a Anions by 300.0 - Fluoride	16984-48-8	1.1	0.85	1.1	1
	EPA 314.0		ug/kg	ug/kg	ug/kg	
10147	7a Perchlorate EPA 314.0	14797-73-0	9.4 U	9.4	31.5	1
	SW-846 7199		mg/kg	mg/kg	mg/kg	
05892	3a Cr VI by EPA 7199	18540-29-9	0.21 U	0.21	1.0	1
	SW-846 9045C modified		Std. Units	Std. Units	Std. Units	

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 5

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry		SW-846 9045C modified	Std. Units	Std. Units	Std. Units	
00394	17a pH by 9045C	n.a.	7.56	0.0100	0.0100	1
Wet Chemistry		EPA 160.3 modified	%	%	%	
11624	Moisture Content by 160.3	n.a.	4.7	0.50	0.50	1
"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.						

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
04688	5a Semivolatiles by EPA 8270C	SW-846 8270C	1	11341SLB026	12/12/2011 13:44	Brian K Graham	1
10138	4a Select SVOC EPA 8270SIM	SW-846 8270C SIM	1	11339SLE026	12/16/2011 22:28	Dale R Stonerod	1
10479	BNA Soil Extraction SIM	SW-846 3550B	1	11339SLE026	12/06/2011 07:20	Katheryne V Sponheimer	1
00381	BNA Soil Sonication	SW-846 3550B	1	11341SLB026	12/07/2011 18:30	Sally L Appleyard	1
10225	8a PCBs/PCTs by 8082	SW-846 8082	1	113400026A	12/08/2011 23:26	Jessica L Miller	1
00819	Solid Sample Pesticide Extract	SW-846 3550B	1	113400026A	12/07/2011 05:30	Roman Kuropatkin	1
01643	Aluminum	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
07914	Boron	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01650	Calcium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01654	Iron	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01656	Lithium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01657	Magnesium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
06958	Manganese	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
10145	Phosphorus	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01662	Potassium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
01667	Sodium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
07968	Strontium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
06969	Tin	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
06970	Titanium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
10146	Zirconium	SW-846 6010B	1	113395708003	12/08/2011 05:43	Tara L Snyder	1
06124	Antimony	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06125	Arsenic	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06126	Barium	SW-846 6020	1	113391026003D	12/08/2011 11:41	Choon Y Tian	2
06127	Beryllium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488960
LLI Group # 1279335
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/19/2011 11:48

E9206 SDG#: DE292-06FD*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06128	Cadmium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06131	Chromium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06132	Cobalt	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06133	Copper	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06135	Lead	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06138	Molybdenum	SW-846 6020	1	113391026003C	12/08/2011 11:41	Choon Y Tian	2
06139	Nickel	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06141	Selenium	SW-846 6020	1	113391026003B	12/08/2011 11:41	Choon Y Tian	2
06142	Silver	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06145	Thallium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06148	Vanadium	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
06149	Zinc	SW-846 6020	1	113391026003A	12/08/2011 11:41	Choon Y Tian	2
00159	Mercury	SW-846 7471A	1	113395711004	12/06/2011 19:37	Nelli S Markaryan	1
05708	SW SW846 ICP Digest	SW-846 3050B	1	113395708003	12/05/2011 22:33	Annamaria Stipkovits	1
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	113391026003	12/06/2011 13:05	James L Mertz	1
05711	SW SW846 Hg Digest	SW-846 7471A modified	1	113395711004	12/06/2011 13:53	James L Mertz	1
07332	11a Anions by 300.0 - Fluoride	EPA 300.0	1	11348621201A	12/15/2011 21:12	Ashley M Adams	1
10147	7a Perchlorate EPA 314.0	EPA 314.0	1	11343621204A	12/10/2011 16:17	Elyse P Brunstetter	1
05892	3a Cr VI by EPA 7199	SW-846 7199	1	11341243202A	12/10/2011 12:44	Elyse P Brunstetter	1
01352	11a Anions by 300.0 - Extract.	EPA 300.0	2	11348621201A	12/14/2011 07:50	William L Hamaker Jr	1
10129	7a Perchlorate EPA 314.0 Prep.	EPA 314.0	1	11343621204A	12/09/2011 08:20	William L Hamaker Jr	1
00394	17a pH by 9045C	SW-846 9045C modified	1	11347039401A	12/13/2011 21:00	Luz M Groff	1
02432	3a Cr VI by EPA 7199 - Ext.	SW-846 3060A	1	11341243202A	12/07/2011 10:30	Yolunder Y Bunch	1
11624	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 11339SLE026 Sample number(s): 6488950-6488952, 6488956-6488960									
Acenaphthene	0.67 U	0.67	1.7	ug/kg	94		63-120		
Acenaphthylene	0.33 U	0.33	1.7	ug/kg	97		60-120		
Anthracene	0.33 U	0.33	1.7	ug/kg	100		73-113		
Benzo(a)anthracene	0.67 U	0.67	1.7	ug/kg	99		74-120		
Benzo(a)pyrene	0.67 U	0.67	1.7	ug/kg	99		58-129		
Benzo(b)fluoranthene	0.67 U	0.67	1.7	ug/kg	107		63-143		
Benzo(g,h,i)perylene	0.67 U	0.67	1.7	ug/kg	107		66-150		
Benzo(k)fluoranthene	0.67 U	0.67	1.7	ug/kg	103		54-142		
Butylbenzylphthalate	6.0 U	6.0	18	ug/kg	107		65-131		
Di-n-butylphthalate	6.0 U	6.0	18	ug/kg	114		75-137		
Chrysene	0.33 U	0.33	1.7	ug/kg	101		73-114		
Dibenz(a,h)anthracene	0.67 U	0.67	1.7	ug/kg	112		53-138		
Diethylphthalate	6.0 U	6.0	18	ug/kg	115		68-125		
Dimethylphthalate	6.0 U	6.0	18	ug/kg	112		79-121		
Bis(2-Ethylhexyl)phthalate	6.0 U	6.0	18	ug/kg	102		67-143		
Fluoranthene	0.67 U	0.67	1.7	ug/kg	107		64-120		
Fluorene	0.67 U	0.67	1.7	ug/kg	102		71-120		
Indeno(1,2,3-cd)pyrene	0.67 U	0.67	1.7	ug/kg	110		56-134		
1-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	95		72-120		
2-Methylnaphthalene	0.67 U	0.67	1.7	ug/kg	93		62-120		
Naphthalene	0.67 U	0.67	1.7	ug/kg	90		67-120		
N-Nitrosodimethylamine	0.67 U	0.67	1.7	ug/kg	76		55-118		
Di-n-octylphthalate	6.0 U	6.0	18	ug/kg	109		68-162		
Phenanthrene	0.67 U	0.67	1.7	ug/kg	97		75-120		
Pyrene	0.67 U	0.67	1.7	ug/kg	107		72-119		
Batch number: 11341SLB026 Sample number(s): 6488950-6488952, 6488956-6488960									
Acenaphthene	17 U	17.	170	ug/kg	88		76-111		
Acenaphthylene	17 U	17.	170	ug/kg	102		75-122		
Aniline	170 U	170.	500	ug/kg	68		20-115		
Anthracene	17 U	17.	170	ug/kg	97		76-112		
Benzidine	1,200 U	1,200.	3,300	ug/kg	37		15-121		
Benzo(a)anthracene	17 U	17.	170	ug/kg	88		73-112		
Benzo(a)pyrene	17 U	17.	170	ug/kg	97		65-124		
Benzo(b)fluoranthene	17 U	17.	170	ug/kg	98		61-127		
Benzo(g,h,i)perylene	17 U	17.	170	ug/kg	89		60-125		
Benzo(k)fluoranthene	17 U	17.	170	ug/kg	95		67-125		
Benzoic acid	170 U	170.	500	ug/kg	90		62-113		
Benzyl alcohol	170 U	170.	500	ug/kg	89		68-111		
4-Bromophenyl-phenylether	17 U	17.	170	ug/kg	91		73-114		
Butylbenzylphthalate	17 U	17.	170	ug/kg	91		75-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCS D %REC	LCS/LCSD Limits	RPD	RPD Max
Di-n-butylphthalate	17 U	17.	170	ug/kg	97		79-112		
Carbazole	17 U	17.	170	ug/kg	93		77-113		
4-Chloro-3-methylphenol	33 U	33.	170	ug/kg	88		74-119		
4-Chloroaniline	67 U	67.	170	ug/kg	41		10-110		
bis(2-Chloroethoxy)methane	17 U	17.	170	ug/kg	87		70-118		
bis(2-Chloroethyl)ether	17 U	17.	170	ug/kg	89		70-104		
bis(2-Chloroisopropyl)ether	17 U	17.	170	ug/kg	83		62-115		
2-Chloronaphthalene	17 U	17.	170	ug/kg	73		49-128		
2-Chlorophenol	17 U	17.	170	ug/kg	93		72-112		
4-Chlorophenyl-phenylether	33 U	33.	170	ug/kg	90		74-115		
Chrysene	17 U	17.	170	ug/kg	88		76-113		
Dibenz(a,h)anthracene	17 U	17.	170	ug/kg	89		61-126		
Dibenzofuran	17 U	17.	170	ug/kg	88		74-116		
1,2-Dichlorobenzene	17 U	17.	170	ug/kg	85		74-99		
1,3-Dichlorobenzene	17 U	17.	170	ug/kg	84		70-98		
1,4-Dichlorobenzene	17 U	17.	170	ug/kg	83		74-106		
3,3'-Dichlorobenzidine	100 U	100.	330	ug/kg	52		10-116		
2,4-Dichlorophenol	17 U	17.	170	ug/kg	92		75-111		
Diethylphthalate	17 U	17.	170	ug/kg	92		76-111		
2,4-Dimethylphenol	33 U	33.	170	ug/kg	90		72-111		
3,5-Dimethylphenol	33 U	33.	170	ug/kg	96		83-120		
Dimethylphthalate	17 U	17.	170	ug/kg	91		77-109		
4,6-Dinitro-2-methylphenol	170 U	170.	500	ug/kg	82		46-120		
2,4-Dinitrophenol	330 U	330.	1,000	ug/kg	76		18-133		
2,4-Dinitrotoluene	33 U	33.	170	ug/kg	93		73-115		
2,6-Dinitrotoluene	17 U	17.	170	ug/kg	95		79-115		
1,2-Diphenylhydrazine	17 U	17.	170	ug/kg	92		71-125		
bis(2-Ethylhexyl)phthalate	17 U	17.	330	ug/kg	91		75-117		
Fluoranthene	17 U	17.	170	ug/kg	97		78-116		
Fluorene	17 U	17.	170	ug/kg	94		75-116		
Hexachlorobenzene	17 U	17.	170	ug/kg	92		73-119		
Hexachlorobutadiene	67 U	67.	170	ug/kg	85		65-117		
Hexachlorocyclopentadiene	170 U	170.	500	ug/kg	84		46-115		
Hexachloroethane	17 U	17.	170	ug/kg	84		61-109		
Indeno(1,2,3-cd)pyrene	17 U	17.	170	ug/kg	87		64-119		
Isophorone	17 U	17.	170	ug/kg	86		69-110		
1-Methylnaphthalene	17 U	17.	170	ug/kg	82		74-105		
2-Methylnaphthalene	17 U	17.	170	ug/kg	86		69-109		
2-Methylphenol	33 U	33.	170	ug/kg	93		66-110		
4-Methylphenol	33 U	33.	170	ug/kg	86		66-117		
Naphthalene	17 U	17.	170	ug/kg	88		73-106		
2-Nitroaniline	17 U	17.	170	ug/kg	93		78-116		
3-Nitroaniline	33 U	33.	170	ug/kg	85		62-109		
4-Nitroaniline	67 U	67.	170	ug/kg	60		49-98		
Nitrobenzene	17 U	17.	170	ug/kg	86		66-119		
2-Nitrophenol	17 U	17.	170	ug/kg	89		76-111		
4-Nitrophenol	170 U	170.	500	ug/kg	78		56-118		
N-Nitroso-di-n-propylamine	17 U	17.	170	ug/kg	80		63-107		
N-Nitrosodimethylamine	33 U	33.	170	ug/kg	81		60-106		
N-Nitrosodiphenylamine	17 U	17.	170	ug/kg	96		67-141		
Di-n-octylphthalate	17 U	17.	170	ug/kg	97		62-137		
Pentachlorophenol	170 U	170.	500	ug/kg	91		51-117		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCS D %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Phenanthrene	17 U	17.	170	ug/kg	95		77-113		
Phenol	17 U	17.	170	ug/kg	89		58-112		
Pyrene	17 U	17.	170	ug/kg	92		75-115		
1,2,4-Trichlorobenzene	17 U	17.	170	ug/kg	86		73-108		
2,4,5-Trichlorophenol	33 U	33.	170	ug/kg	97		76-107		
2,4,6-Trichlorophenol	33 U	33.	170	ug/kg	94		78-111		
Batch number: 113410017A 6a Perchlorate EPA 6850	Sample number(s): 6488956 2.1 U 2.1	5.0	ug/kg	117*			85-115		
Batch number: 113400026A	Sample number(s): 6488950-6488952, 6488954-6488960								
Aroclor 5432	1.0 U 1.0	3.3	ug/kg						
Aroclor 5442	1.0 U 1.0	3.3	ug/kg	73	76		36-106	4	30
Aroclor 5460	1.0 U 1.0	3.3	ug/kg						
PCB-1016	0.33 U 0.33	1.7	ug/kg	77			72-120		
PCB-1221	0.33 U 0.33	1.7	ug/kg						
PCB-1232	0.33 U 0.33	1.7	ug/kg						
PCB-1242	0.33 U 0.33	1.7	ug/kg						
PCB-1248	0.33 U 0.33	1.7	ug/kg						
PCB-1254	0.33 U 0.33	1.7	ug/kg						
PCB-1260	0.39 U 0.39	1.7	ug/kg	99			65-137		
PCB-1262	0.33 U 0.33	1.7	ug/kg						
PCB-1268	0.33 U 0.33	1.7	ug/kg						
Batch number: 113391026003A	Sample number(s): 6488950-6488953, 6488956-6488960								
Antimony	0.0712 U 0.0712	0.192	mg/kg	69			40-227		
Arsenic	0.0769 U 0.0769	0.385	mg/kg	99			83-111		
Beryllium	0.0154 U 0.0154	0.0962	mg/kg	97			84-112		
Cadmium	0.0423 U 0.0423	0.0962	mg/kg	104			83-111		
Chromium	0.115 U 0.115	0.385	mg/kg	110			77-123		
Cobalt	0.0192 U 0.0192	0.0962	mg/kg	105			85-114		
Copper	0.0769 U 0.0769	0.385	mg/kg	103			81-110		
Lead	0.0098 U 0.0098	0.192	mg/kg	100			84-112		
Nickel	0.0962 U 0.0962	0.385	mg/kg	99			81-110		
Silver	0.0137 U 0.0137	0.0962	mg/kg	100			83-112		
Thallium	0.0288 U 0.0288	0.0962	mg/kg	99			82-112		
Vanadium	0.0212 U 0.0212	0.0962	mg/kg	103			76-110		
Zinc	0.538 U 0.538	2.88	mg/kg	103			82-110		
Batch number: 113391026003B	Sample number(s): 6488950-6488953, 6488956-6488960								
Selenium	0.0558 U 0.0558	0.385	mg/kg	99			79-110		
Batch number: 113391026003C	Sample number(s): 6488950-6488953, 6488956-6488960								
Molybdenum	0.0481 U 0.0481	0.0962	mg/kg	99			80-110		
Batch number: 113391026003D	Sample number(s): 6488950-6488953, 6488956-6488960								
Barium	0.102 U 0.102	0.385	mg/kg	102			83-110		
Batch number: 113395708003	Sample number(s): 6488950-6488953, 6488956-6488960								
Aluminum	10.1 J 6.05	20.0	mg/kg	80			40-127		
Boron	0.360 U 0.360	5.00	mg/kg	103			83-110		
Calcium	9.44 J 2.50	20.0	mg/kg	102			81-110		
Iron	4.21 J 2.61	20.0	mg/kg	94			47-129		
Lithium	0.62 U 0.62	2.0	mg/kg	100			80-120		
Magnesium	4.45 J 0.440	10.0	mg/kg	88			63-116		
Manganese	0.0360 U 0.0360	0.500	mg/kg	99			85-116		
Phosphorus	1.34 J 0.350	10.0	mg/kg	105			80-120		
Potassium	11.3 U 11.3	50.0	mg/kg	100			71-110		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Sodium	6.93 J	5.95	100	mg/kg	102		76-110		
Strontium	0.0380 J	0.0250	0.500	mg/kg	101		84-110		
Tin	1.49 J	0.320	10.0	mg/kg	110		86-120		
Titanium	0.0710 U	0.0710	1.00	mg/kg	95		80-120		
Zirconium	0.460 U	0.460	5.00	mg/kg	105		80-120		
Batch number: 113395711004	Sample number(s): 6488950-6488953, 6488956-6488960								
Mercury	0.0070 U	0.0070	0.0991	mg/kg	96		83-119		
Batch number: 11341243202A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
3a Cr VI by EPA 7199	0.20 U	0.20	1.0	mg/kg	100		80-120		
Batch number: 11343621204A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
7a Perchlorate EPA 314.0	9.0 U	9.0	30.0	ug/kg	109		85-115		
Batch number: 11348621201A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960								
11a Anions by 300.0 - Fluoride	0.80 U	0.80	1.0	mg/kg	99		90-110		
Batch number: 11347039401A	Sample number(s): 6488950, 6488953, 6488956-6488960								
17a pH by 9045C					100		95-105		
Batch number: 11343162402A	Sample number(s): 6488950-6488954, 6488956-6488960								
28a Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		
Moisture Content by 160.3					100		80-120		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11339SLE026	Sample number(s): 6488950-6488952, 6488956-6488960 UNSPK: 6488950								
Acenaphthene	98	97	63-105	0	30				
Acenaphthylene	100	101	67-114	0	30				
Anthracene	105	101	73-115	3	30				
Benzo(a)anthracene	103	98	59-128	5	30				
Benzo(a)pyrene	106	100	58-142	6	30				
Benzo(b)fluoranthene	103	98	54-163	5	30				
Benzo(g,h,i)perylene	97	92	33-141	5	30				
Benzo(k)fluoranthene	98	94	57-153	5	30				
Butylbenzylphthalate	109	116	57-173	7	30				
Di-n-butylphthalate	122	120	65-148	2	30				
Chrysene	104	101	67-123	2	30				
Dibenz(a,h)anthracene	105	96	22-133	8	30				
Diethylphthalate	115	110	70-136	4	30				
Dimethylphthalate	106	107	74-118	1	30				
Bis(2-Ethylhexyl)phthalate	126	130	39-167	3	30				
Fluoranthene	108	107	51-149	1	30				
Fluorene	105	101	66-122	4	30				
Indeno(1,2,3-cd)pyrene	106	96	21-143	10	30				
1-Methylnaphthalene	88	89	72-123	0	30				
2-Methylnaphthalene	86	87	64-103	1	30				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Naphthalene	90	90	61-102	0	30				
N-Nitrosodimethylamine	93	93	48-113	0	30				
Di-n-octylphthalate	111	109	40-192	2	30				
Phenanthrene	100	98	62-122	2	30				
Pyrene	104	98	51-131	6	30				

Batch number: 11341SLB026 Sample number(s): 6488950-6488952, 6488956-6488960 UNSPK: 6488950

Acenaphthene	87	91	75-115	5	30				
Acenaphthylene	99	103	81-110	4	30				
Aniline	62	56	18-116	11	30				
Anthracene	93	96	75-115	4	30				
Benizidine	15*	0*	35-141	200*	30				
Benzo(a)anthracene	87	92	65-122	5	30				
Benzo(a)pyrene	98	100	57-126	1	30				
Benzo(b)fluoranthene	99	106	59-125	6	30				
Benzo(g,h,i)perylene	89	93	59-127	5	30				
Benzo(k)fluoranthene	96	97	56-132	0	30				
Benzoic acid	0*	0*	10-173	0	30				
Benzy alcohol	87	90	67-115	3	30				
4-Bromophenyl-phenylether	90	91	67-129	1	30				
Butylbenzylphthalate	90	91	73-134	2	30				
Di-n-butylphthalate	94	96	67-123	2	30				
Carbazole	91	93	64-120	2	30				
4-Chloro-3-methylphenol	89	90	62-122	1	30				
4-Chloroaniline	54	49	13-107	10	30				
bis(2-Chloroethoxy)methane	84	88	75-104	4	30				
bis(2-Chloroethyl)ether	86	90	60-116	5	30				
bis(2-Chloroisopropyl)ether	81	84	55-142	5	30				
2-Chloronaphthalene	71	76	50-141	6	30				
2-Chlorophenol	87	92	73-121	5	30				
4-Chlorophenyl-phenylether	90	94	80-109	5	30				
Chrysene	86	91	62-128	5	30				
Dibenz(a,h)anthracene	91	94	65-125	3	30				
Dibenzofuran	86	91	71-112	5	30				
1,2-Dichlorobenzene	79	84	66-108	6	30				
1,3-Dichlorobenzene	79	84	63-109	6	30				
1,4-Dichlorobenzene	80	83	58-108	4	30				
3,3'-Dichlorobenzidine	50	47	28-109	6	30				
2,4-Dichlorophenol	92	96	66-123	4	30				
Diethylphthalate	91	95	66-118	4	30				
2,4-Dimethylphenol	88	91	68-118	3	30				
3,5-Dimethylphenol	94	97	71-127	3	30				
Dimethylphthalate	90	93	64-118	4	30				
4,6-Dinitro-2-methylphenol	49	38	11-126	25	30				
2,4-Dinitrophenol	27	20	20-143	28	30				
2,4-Dinitrotoluene	91	95	56-129	4	30				
2,6-Dinitrotoluene	94	97	69-123	3	30				
1,2-Diphenylhydrazine	88	90	71-129	2	30				
bis(2-Ethylhexyl)phthalate	87	92	63-122	5	30				
Fluoranthene	95	98	73-112	3	30				
Fluorene	93	96	63-121	3	30				
Hexachlorobenzene	90	93	77-114	3	30				
Hexachlorobutadiene	81	89	62-120	9	30				

*- Outside of specification

**-.This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Hexachlorocyclopentadiene	77	84	10-153	9	30				
Hexachloroethane	80	83	57-109	4	30				
Indeno(1,2,3-cd)pyrene	91	90	61-126	1	30				
Isophorone	85	88	73-102	3	30				
1-Methylnaphthalene	81	86	64-122	5	30				
2-Methylnaphthalene	84	89	76-114	5	30				
2-Methylphenol	90	93	75-111	3	30				
4-Methylphenol	84	85	59-123	2	30				
Naphthalene	86	89	72-116	3	30				
2-Nitroaniline	92	96	67-125	4	30				
3-Nitroaniline	87	88	59-122	1	30				
4-Nitroaniline	61	60	41-109	2	30				
Nitrobenzene	84	89	57-125	5	30				
2-Nitrophenol	87	91	56-127	5	30				
4-Nitrophenol	75	78	37-129	4	30				
N-Nitroso-di-n-propylamine	79	80	60-116	2	30				
N-Nitrosodimethylamine	78	80	47-116	3	30				
N-Nitrosodiphenylamine	92	94	71-122	3	30				
Di-n-octylphthalate	102	103	56-126	0	30				
Pentachlorophenol	78	73	28-127	7	30				
Phenanthrene	91	93	65-125	2	30				
Phenol	87	88	58-126	1	30				
Pyrene	92	92	74-126	1	30				
1,2,4-Trichlorobenzene	85	89	72-115	4	30				
2,4,5-Trichlorophenol	93	96	58-129	3	30				
2,4,6-Trichlorophenol	92	95	56-134	3	30				

Batch number: 113410017A
6a Perchlorate EPA 6850

Sample number(s): 6488956 UNSPK: 6488956
114 119 80-120 4 20

Batch number: 113400026A
PCB-1016
PCB-1260

Sample number(s): 6488950-6488952, 6488954-6488960 UNSPK: 6488950
63 74 29-146 17 50
72 93 39-149 26 50

Batch number: 113391026003A

Antimony	34*	32*	75-125	6	20	0.0733 U	0.0725 U	0 (1)	20
Arsenic	140*	136*	75-125	1	20	6.30	7.02	11	20
Beryllium	96	104	75-125	5	20	0.569	0.665	16	20
Cadmium	101	107	75-125	5	20	0.0562 J	0.0617 J	9 (1)	20
Chromium	105	117	75-125	5	20	13.2	13.5	3	20
Cobalt	108	112	75-125	3	20	7.31	7.15	2	20
Copper	106	116	75-125	5	20	7.03	7.40	5	20
Lead	110	110	75-125	0	20	4.84	5.11	5	20
Nickel	100	107	75-125	4	20	8.12	8.67	6	20
Silver	107	108	75-125	1	20	0.0141 U	0.0139 U	0 (1)	20
Thallium	93	95	75-125	1	20	0.274	0.276	1 (1)	20
Vanadium	111	129*	75-125	4	20	30.0	33.1	10	20
Zinc	77 (2)	123 (2)	75-125	6	20	63.8	71.0	11	20

Batch number: 113391026003B
Selenium

Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950
100 118 75-125 15 20 0.102 J 0.126 J 21* (1) 20

Batch number: 113391026003C

Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Molybdenum	100	102	75-125	2	20	0.314	0.278	12 (1)	20
Batch number: 113391026003D	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Barium	54 (2)	109 (2)	75-125	6	20	82.6	86.8	5	20
Batch number: 113395708003	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Aluminum	996 (2)	1240 (2)	75-125	3	20	10,900	11,100	2	20
Boron	98	98	84-115	1	20	0.360 U	0.353 U	0 (1)	20
Calcium	122 (2)	144 (2)	75-125	2	20	3,490	4,800	32*	20
Iron	-418 (2)	1097 (2)	75-125	7	20	21,500	21,800	1	20
Lithium	98	98	82-114	1	20	22.0	21.8	1	20
Magnesium	72 (2)	157 (2)	75-125	4	20	4,170	4,180	0	20
Manganese	75 (2)	44 (2)	75-125	5	20	305	330	8	20
Phosphorus	87 (2)	107 (2)	75-125	3	20	448	452	1	20
Potassium	101	106	75-125	1	20	2,340	2,170	8	20
Sodium	97	96	75-125	2	20	60.7 J	61.2 J	1 (1)	20
Strontium	94	95	75-115	0	20	6.91	7.78	12	20
Tin	94	95	80-110	1	20	3.39 J	3.25 J	4 (1)	20
Titanium	191 (2)	239 (2)	75-125	3	20	1,130	1,090	4	20
Zirconium	100	99	81-110	1	20	2.06 J	2.63 J	24* (1)	20
Batch number: 113395711004	Sample number(s): 6488950-6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
Mercury	103	102	65-135	1	20	0.0066 U	0.0067 U	0 (1)	20
Batch number: 11341243202A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
3a Cr VI by EPA 7199	108		75-125			0.20 U	0.20 U	0 (1)	20
Batch number: 11343621204A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
7a Perchlorate EPA 314.0	112		80-120			9.0 U	9.0 U	0 (1)	15
Batch number: 11348621201A	Sample number(s): 6488950-6488951, 6488953, 6488956-6488960 UNSPK: 6488950 BKG: 6488950								
11a Anions by 300.0 - Fluoride	98		80-120			0.80 U	1.1	200* (1)	20
Batch number: 11347039401A	Sample number(s): 6488950, 6488953, 6488956-6488960 BKG: 6488950								
17a pH by 9045C						7.91	7.93	0	3
Batch number: 11343162402A	Sample number(s): 6488950-6488954, 6488956-6488960 BKG: 6488950								
28a Moisture Content by 160.3						5.0	5.3	7	20
Moisture Content by 160.3						5.0	5.3	7	20
Moisture Content by 160.3						5.0	5.3	7	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Surrogate Quality Control

Analysis Name: 4a Select SVOC EPA 8270SIM
Batch number: 11339SLE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6488950	99	89	98
6488951	106	90	94
6488952	106	93	95
6488956	98	96	101
6488957	88	91	91
6488958	95	87	102
6488959	94	99	100
6488960	89	91	99
Blank	97	93	104
LCS	112	95	98
MS	106	90	94
MSD	106	93	95
Limits:	67-129	63-129	51-141

Analysis Name: 5a Semivolatiles by EPA 8270C
Batch number: 11341SLB026

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
6488950	91	96	92	85	90	84
6488951	88	92	92	81	84	79
6488952	90	95	92	84	91	82
6488956	94	99	94	83	87	84
6488957	95	98	91	81	88	82
6488958	88	93	87	78	85	83
6488959	94	98	93	83	88	86
6488960	89	93	95	84	89	86
Blank	91	95	91	84	90	84
LCS	90	94	91	81	85	81
MS	88	92	92	81	84	79
MSD	90	95	92	84	91	82
Limits:	25-120	25-130	35-130	40-130	45-130	45-135

Analysis Name: 8a PCBs/PCTs by 8082
Batch number: 113400026A

	Tetrachloro-m-xylene	Decachlorobiphenyl
6488950	91	105
6488951	75	84
6488952	91	100
6488954	88	102
6488955	86	100
6488956	88	100
6488957	81	90
6488958	85	95
6488959	93	104
6488960	87	100
Blank	71	82
LCS	92	108
LCS D	91	106
MS	75	84

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/19/11 at 11:48 AM

Group Number: 1279335

Surrogate Quality Control

MSD	91	100
Limits:	53-139	45-120

*- Outside of specification

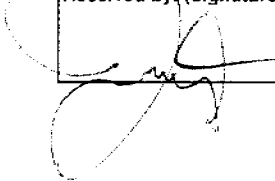
** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

acc#13013 Cp# 1279335

Sample# 6433950-60

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES								Other Instructions and Notes	
NOTES: *Primary Analyses as indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B		Perchlorate Confirmation by EPA 6850 (10%)
Samplers Signatures: 																
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers											
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-SS Sleeve			X	X							MS/MSD
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-16 oz jars	X	X			X	X	X	X			MS/MSD
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-SS Sleeve			X	X							
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X	X		
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-SS Sleeve			X	X							
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-SS Sleeve			X	X							
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-SS Sleeve			X	X							
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-SS Sleeve			X	X							
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X			
Relinquished by: (Signature)	Date/Time		Received for Laboratory by: (Signature)													Laboratory:
	12/02/2011 / 1630															Lancaster Laboratories, Inc.
Received by: (Signature)	Date/Time		Airbill No.(s)													
	12/2/11 0910		8767 9857 5030													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

December 20, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/03/2011

Group Number: 1279336

SDG: DX157

PO Number: 1203-004-009-AL

Release Number: TRACKING #12571

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-019-SA8S-SB-4.0-5.0 Soil	6488961
SL-019-SA8S-SB-4.0-5.0MS Soil	6488962
SL-019-SA8S-SB-4.0-5.0MSD Soil	6488963
SL-020-SA8S-SB-4.0-5.0 Soil	6488964
SL-020-SA8S-SB-9.0-10.0 Soil	6488965
SL-021-SA8S-SB-4.0-5.0 Soil	6488966
SL-021-SA8S-SB-9.0-10.0 Soil	6488967
DUP02-SA8S-QC-120211 Soil	6488968

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC CDM Federal Services Program

COPY TO

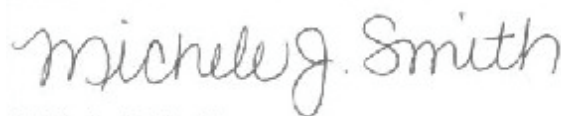
ELECTRONIC Data Package Group

COPY TO

Attn: Todd Burgess

Questions? Contact your Client Services Representative
Nicole L Maljovec at (717) 656-2300 Ext. 1537

Respectfully Submitted,



Michele J. Smith
Senior Specialist



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0305 JBQ	0.0145	1.05	1
11031	12378-PeCDD	40321-76-4	0.0394 JB	0.0149	5.25	1
11031	123478-HxCDD	39227-28-6	0.0352 JB	0.0132	5.25	1
11031	123678-HxCDD	57653-85-7	0.0428 JB	0.0136	5.25	1
11031	123789-HxCDD	19408-74-3	0.0397 JBQ	0.0127	5.25	1
11031	1234678-HpCDD	35822-46-9	0.316 JBQ	0.0158	5.25	1
11031	OCDD	3268-87-9	0.550 JB	0.0160	10.5	1
11031	2378-TCDF	51207-31-9	0.0138 U	0.0138	1.05	1
11031	12378-PeCDF	57117-41-6	0.0360 JB	0.00779	5.25	1
11031	23478-PeCDF	57117-31-4	0.0732 JBQ	0.00737	5.25	1
11031	123478-HxCDF	70648-26-9	0.0533 JB	0.00989	5.25	1
11031	123678-HxCDF	57117-44-9	0.0445 JBQ	0.00926	5.25	1
11031	123789-HxCDF	72918-21-9	0.0534 JB	0.0100	5.25	1
11031	234678-HxCDF	60851-34-5	0.0560 JBQ	0.00958	5.25	1
11031	1234678-HpCDF	67562-39-4	0.131 JB	0.00853	5.25	1
11031	1234789-HpCDF	55673-89-7	0.0352 JBQ	0.0108	5.25	1
11031	OCDF	39001-02-0	0.151 JB	0.0128	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	62	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/03/2011 09:10

Suite 210

Reported: 12/20/2011 17:43

Chantilly VA 20151

X5701 SDG#: DX157-01BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: SL-019-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488961
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/16/2011 23:23	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	19.7	B	0.0195	1
11031	12378-PeCDD	40321-76-4	102	B	0.0211	1
11031	123478-HxCDD	39227-28-6	97.7	B	0.0280	1
11031	123678-HxCDD	57653-85-7	98.2	B	0.0301	1
11031	123789-HxCDD	19408-74-3	106	B	0.0274	1
11031	1234678-HpCDD	35822-46-9	105	B	0.0294	1
11031	OCDD	3268-87-9	206	B	0.0235	1
11031	2378-TCDF	51207-31-9	20.6	B	0.0254	1
11031	12378-PeCDF	57117-41-6	105	B	0.0205	1
11031	23478-PeCDF	57117-31-4	96.9	B	0.0187	1
11031	123478-HxCDF	70648-26-9	107	B	0.0371	1
11031	123678-HxCDF	57117-44-9	104	B	0.0319	1
11031	123789-HxCDF	72918-21-9	105	B	0.0344	1
11031	234678-HxCDF	60851-34-5	103	B	0.0342	1
11031	1234678-HpCDF	67562-39-4	96.7	B	0.0240	1
11031	1234789-HpCDF	55673-89-7	102	B	0.0302	1
11031	OCDF	39001-02-0	205	B	0.0198	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	67	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488962
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 05:16	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	Moisture Content by 160.3	n.a.	5.0	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	20.1	B	0.0199	1
11031	12378-PeCDD	40321-76-4	103	B	0.0280	1
11031	123478-HxCDD	39227-28-6	96.9	B	0.0236	1
11031	123678-HxCDD	57653-85-7	97.3	B	0.0237	1
11031	123789-HxCDD	19408-74-3	106	B	0.0224	1
11031	1234678-HpCDD	35822-46-9	103	B	0.0255	1
11031	OCDD	3268-87-9	202	B	0.0217	1
11031	2378-TCDF	51207-31-9	20.4	B	0.0235	1
11031	12378-PeCDF	57117-41-6	102	B	0.0199	1
11031	23478-PeCDF	57117-31-4	98.9	B	0.0200	1
11031	123478-HxCDF	70648-26-9	107	B	0.0442	1
11031	123678-HxCDF	57117-44-9	106	B	0.0405	1
11031	123789-HxCDF	72918-21-9	107	B	0.0409	1
11031	234678-HxCDF	60851-34-5	101	B	0.0411	1
11031	1234678-HpCDF	67562-39-4	95.8	B	0.0234	1
11031	1234789-HpCDF	55673-89-7	102	B	0.0287	1
11031	OCDF	39001-02-0	205	B	0.0227	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	63	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-019-SA8S-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-019-SA8S-SB

LLI Sample # SW 6488963
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:10

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5701 SDG#: DX157-01MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 06:13	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	11.5	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0395 JB	0.0133	1.12	1
11031	12378-PeCDD	40321-76-4	0.0780 JBQ	0.0165	5.62	1
11031	123478-HxCDD	39227-28-6	0.0492 JBQ	0.0139	5.62	1
11031	123678-HxCDD	57653-85-7	0.0765 JBQ	0.0144	5.62	1
11031	123789-HxCDD	19408-74-3	0.0605 JBQ	0.0132	5.62	1
11031	1234678-HpCDD	35822-46-9	0.464 JB	0.0165	5.62	1
11031	OCDD	3268-87-9	2.43 JB	0.0120	11.2	1
11031	2378-TCDF	51207-31-9	0.0162 JBQ	0.0141	1.12	1
11031	12378-PeCDF	57117-41-6	0.0805 JBQ	0.00825	5.62	1
11031	23478-PeCDF	57117-31-4	0.100 JB	0.00791	5.62	1
11031	123478-HxCDF	70648-26-9	0.0706 JBQ	0.0106	5.62	1
11031	123678-HxCDF	57117-44-9	0.0619 JBQ	0.00960	5.62	1
11031	123789-HxCDF	72918-21-9	0.0728 JBQ	0.00983	5.62	1
11031	234678-HxCDF	60851-34-5	0.0724 JBQ	0.00994	5.62	1
11031	1234678-HpCDF	67562-39-4	0.186 JB	0.00678	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0626 JB	0.00904	5.62	1
11031	OCDF	39001-02-0	0.241 JB	0.0134	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	60	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488964
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:15

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5702 SDG#: DX157-02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 07:10	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0197 JBQ	0.0118	1.08	1
11031	12378-PeCDD	40321-76-4	0.0480 JB	0.0179	5.41	1
11031	123478-HxCDD	39227-28-6	0.0399 JBQ	0.0118	5.41	1
11031	123678-HxCDD	57653-85-7	0.0503 JBQ	0.0126	5.41	1
11031	123789-HxCDD	19408-74-3	0.0556 JB	0.0116	5.41	1
11031	1234678-HpCDD	35822-46-9	0.362 JB	0.0137	5.41	1
11031	OCDD	3268-87-9	0.752 JB	0.0135	10.8	1
11031	2378-TCDF	51207-31-9	0.0138 U	0.0138	1.08	1
11031	12378-PeCDF	57117-41-6	0.0463 JBQ	0.00780	5.41	1
11031	23478-PeCDF	57117-31-4	0.0542 JB	0.00746	5.41	1
11031	123478-HxCDF	70648-26-9	0.0476 JB	0.00857	5.41	1
11031	123678-HxCDF	57117-44-9	0.0490 JBQ	0.00846	5.41	1
11031	123789-HxCDF	72918-21-9	0.0653 JB	0.00891	5.41	1
11031	234678-HxCDF	60851-34-5	0.0501 JB	0.00857	5.41	1
11031	1234678-HpCDF	67562-39-4	0.156 JB	0.00724	5.41	1
11031	1234789-HpCDF	55673-89-7	0.0529 JB	0.00913	5.41	1
11031	OCDF	39001-02-0	0.185 JB	0.0131	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	56	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-020-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-020-SA8S-SB

LLI Sample # SW 6488965
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 11:45

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5703 SDG#: DX157-03

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 08:06	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.6	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0130 JBQ	0.0130	1.11	1
11031	12378-PeCDD	40321-76-4	0.0404 JBQ	0.0149	5.55	1
11031	123478-HxCDD	39227-28-6	0.0248 JBQ	0.0147	5.55	1
11031	123678-HxCDD	57653-85-7	0.0516 JBQ	0.0151	5.55	1
11031	123789-HxCDD	19408-74-3	0.0572 JBQ	0.0139	5.55	1
11031	1234678-HpCDD	35822-46-9	0.414 JBQ	0.0142	5.55	1
11031	OCDD	3268-87-9	0.763 JB	0.0143	11.1	1
11031	2378-TCDF	51207-31-9	0.0239 JBQ	0.0120	1.11	1
11031	12378-PeCDF	57117-41-6	0.0455 JB	0.00794	5.55	1
11031	23478-PeCDF	57117-31-4	0.0905 JB	0.00805	5.55	1
11031	123478-HxCDF	70648-26-9	0.0543 JB	0.00861	5.55	1
11031	123678-HxCDF	57117-44-9	0.0404 JB	0.00783	5.55	1
11031	123789-HxCDF	72918-21-9	0.0484 JB	0.00850	5.55	1
11031	234678-HxCDF	60851-34-5	0.0574 JB	0.00850	5.55	1
11031	1234678-HpCDF	67562-39-4	0.164 JB	0.00682	5.55	1
11031	1234789-HpCDF	55673-89-7	0.0455 JBQ	0.00884	5.55	1
11031	OCDF	39001-02-0	0.162 JB	0.0134	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	59	17 - 157

Dioxins/Furans Data Qualifiers:

- B Detected in Method Blank
- U Undetected
- J Estimated concentration between Estimated Detection Limit and Minimum Level
- E Exceeds calibration range
- C Confirmed quantitation on secondary GC column
- Q EMPC - Estimated Maximum Possible Concentration
- F Interference is present



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 3 of 4

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488966
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:00

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5704 SDG#: DX157-04

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 09:03	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	10.2	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0322 JBQ	0.0134	1.09	1
11031	12378-PeCDD	40321-76-4	0.0610 JBQ	0.0133	5.46	1
11031	123478-HxCDD	39227-28-6	0.0269 JB	0.0119	5.46	1
11031	123678-HxCDD	57653-85-7	0.0403 JBQ	0.0122	5.46	1
11031	123789-HxCDD	19408-74-3	0.0429 JBQ	0.0109	5.46	1
11031	1234678-HpCDD	35822-46-9	0.311 JB	0.0129	5.46	1
11031	OCDD	3268-87-9	0.658 JB	0.0124	10.9	1
11031	2378-TCDF	51207-31-9	0.0118 U	0.0118	1.09	1
11031	12378-PeCDF	57117-41-6	0.0422 JBQ	0.00690	5.46	1
11031	23478-PeCDF	57117-31-4	0.0630 JB	0.00668	5.46	1
11031	123478-HxCDF	70648-26-9	0.0433 JB	0.00869	5.46	1
11031	123678-HxCDF	57117-44-9	0.0307 JBQ	0.00824	5.46	1
11031	123789-HxCDF	72918-21-9	0.0456 JB	0.00780	5.46	1
11031	234678-HxCDF	60851-34-5	0.0461 JB	0.00824	5.46	1
11031	1234678-HpCDF	67562-39-4	0.148 JB	0.00590	5.46	1
11031	1234789-HpCDF	55673-89-7	0.0288 JBQ	0.00724	5.46	1
11031	OCDF	39001-02-0	0.143 JBQ	0.0117	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	58	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 4 of 4

Sample Description: SL-021-SA8S-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-021-SA8S-SB

LLI Sample # SW 6488967
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 14:30

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5705 SDG#: DX157-05

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 10:00	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

*=This limit was used in the evaluation of the final result



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Page 1 of 4

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	Moisture Content by 160.3	n.a.	4.7	0.50	0.50	1

*=This limit was used in the evaluation of the final result

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
Chantilly VA 20151

Submitted: 12/03/2011 09:10

Reported: 12/20/2011 17:43

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans		EPA 1613B	ng/kg	ng/kg	ng/kg	
11031	2378-TCDD	1746-01-6	0.0249 JB	0.0112	1.04	1
11031	12378-PeCDD	40321-76-4	0.0544 JBQ	0.0121	5.18	1
11031	123478-HxCDD	39227-28-6	0.0242 JBQ	0.00923	5.18	1
11031	123678-HxCDD	57653-85-7	0.0389 JBQ	0.0102	5.18	1
11031	123789-HxCDD	19408-74-3	0.0402 JB	0.00892	5.18	1
11031	1234678-HpCDD	35822-46-9	0.254 JBQ	0.0130	5.18	1
11031	OCDD	3268-87-9	0.411 JB	0.0140	10.4	1
11031	2378-TCDF	51207-31-9	0.0261 JBQ	0.0112	1.04	1
11031	12378-PeCDF	57117-41-6	0.0572 JBQ	0.00745	5.18	1
11031	23478-PeCDF	57117-31-4	0.0773 JB	0.00672	5.18	1
11031	123478-HxCDF	70648-26-9	0.0472 JB	0.00714	5.18	1
11031	123678-HxCDF	57117-44-9	0.0455 JB	0.00703	5.18	1
11031	123789-HxCDF	72918-21-9	0.0458 JB	0.00745	5.18	1
11031	234678-HxCDF	60851-34-5	0.0382 JB	0.00661	5.18	1
11031	1234678-HpCDF	67562-39-4	0.125 JB	0.00577	5.18	1
11031	1234789-HpCDF	55673-89-7	0.0323 JB	0.00703	5.18	1
11031	OCDF	39001-02-0	0.119 JB	0.0107	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	88	25 - 164
13C12-12378-PeCDD	99	25 - 181
13C12-123478-HxCDD	91	32 - 141
13C12-123678-HxCDD	89	28 - 130
13C12-123789-HxCDD	96	28 - 130
13C12-1234678-HpCDD	91	23 - 140
13C12-OCDD	84	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	81	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	92	28 - 143
13C12-1234789-HpCDF	81	26 - 138
13C12-OCDF	74	17 - 157

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank
U Undetected
J Estimated concentration between Estimated Detection Limit and Minimum Level
E Exceeds calibration range
C Confirmed quantitation on secondary GC column
Q EMPC - Estimated Maximum Possible Concentration
F Interference is present

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/03/2011 09:10

Suite 210

Reported: 12/20/2011 17:43

Chantilly VA 20151

X5706 SDG#: DX157-06FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
S	Saturation of detection signal					

Sample Description: DUP02-SA8S-QC-120211 Soil
SSFL Area IV Collocated Soil Sampling
DUP02-SA8S

LLI Sample # SW 6488968
LLI Group # 1279336
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 12/02/2011 09:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 12/03/2011 09:10

Suite 210

Reported: 12/20/2011 17:43

Chantilly VA 20151

X5706 SDG#: DX157-06FD*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11031	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	11345001	12/17/2011 10:56	Joseph D Anderson	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	11345001	12/12/2011 14:00	Ginelle L Haines	1
11625	Moisture Content by 160.3	EPA 160.3 modified	1	11343162402A	12/09/2011 18:56	Scott W Freisher	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11343162402A Moisture Content by 160.3	Sample number(s): 6488961-6488968				100		80-120		

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank EDL**</u>	<u>Blank MRL</u>	<u>Report Units</u>	<u>OPR %REC</u>	<u>OPRD %REC</u>	<u>OPR/OPRD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11345001	Sample number(s): 6488961-6488968								
2378-TCDD	0.0310 J	0.0126	1.00	ng/kg	99		67-158		
12378-PeCDD	0.0361 J	0.0137	5.00	ng/kg	104		70-142		
123478-HxCDD	0.0253 J	0.0108	5.00	ng/kg	99		70-164		
123678-HxCDD	0.0333 J	0.0116	5.00	ng/kg	99		76-134		
123789-HxCDD	0.0445 J	0.0110	5.00	ng/kg	108		64-162		
1234678-HpCDD	0.287 J	0.0127	5.00	ng/kg	102		70-140		
OCDD	0.453 J	0.0107	10.0	ng/kg	103		78-144		
2378-TCDF	0.0116 J	0.0115	1.00	ng/kg	103		75-158		
12378-PeCDF	0.0502 J	0.00660	5.00	ng/kg	103		80-134		
23478-PeCDF	0.0712 J	0.00620	5.00	ng/kg	95		68-160		
123478-HxCDF	0.0577 J	0.00900	5.00	ng/kg	104		72-134		
123678-HxCDF	0.0395 J	0.00850	5.00	ng/kg	104		84-130		
123789-HxCDF	0.0509 J	0.00900	5.00	ng/kg	105		78-130		
234678-HxCDF	0.0578 J	0.00890	5.00	ng/kg	102		70-156		
1234678-HpCDF	0.186 J	0.00520	5.00	ng/kg	96		82-122		
1234789-HpCDF	0.0489 J	0.00670	5.00	ng/kg	102		78-138		
OCDF	0.172 J	0.0110	10.0	ng/kg	103		63-170		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 11343162402A Moisture Content by 160.3	Sample number(s): 6488961-6488968					BKG: P488950 5.0	5.3	7	20
Batch number: 11345001	Sample number(s): 6488961-6488968					UNSPK: 6488961			
2378-TCDD	95	97	67-158	2	25				
12378-PeCDD	98	99	70-142	1	25				
123478-HxCDD	94	93	70-164	1	25				
123678-HxCDD	94	94	76-134	1	25				
123789-HxCDD	102	102	64-162	1	25				
1234678-HpCDD	100	99	70-140	1	25				

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
OCDD	99	97	78-144	2	25				
2378-TCDF	99	98	75-158	1	25				
12378-PeCDF	101	98	80-134	3	25				
23478-PeCDF	93	95	68-160	2	25				
123478-HxCDF	103	103	72-134	0	25				
123678-HxCDF	100	102	84-130	2	25				
123789-HxCDF	101	103	78-130	2	25				
234678-HxCDF	100	97	70-156	2	25				
1234678-HpCDF	93	92	82-122	1	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	99	98	63-170	0	25				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 10a Dioxin/Furan by EPA 1613B
Batch number: 11345001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6488961	73	79	69	74	70	62
6488962	71	71	67	73	68	74
6488963	71	73	67	72	70	74
6488964	65	66	65	71	66	71
6488965	73	75	69	71	68	69
6488966	71	68	64	69	64	68
6488967	65	69	64	66	64	70
6488968	88	84	78	80	81	76
Blank	73	84	80	87	83	89
MS	71	71	67	73	68	74
MSD	71	73	67	72	70	74
OPR	66	76	74	79	76	86
Limits:	25-164	21-178	26-152	26-123	28-136	29-147
	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD
6488961	81	69	62	85	73	77
6488962	83	70	67	81	77	75
6488963	81	67	63	82	77	80
6488964	78	64	60	74	74	75
6488965	74	63	56	82	73	73
6488966	76	63	59	78	72	73
6488967	73	65	58	79	74	76
6488968	92	81	74	99	91	89
Blank	100	82	79	82	90	90
MS	83	70	67	81	77	75
MSD	81	67	63	82	77	80
OPR	92	78	80	76	79	79

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

- (1) The result for one or both determinations was less than five times the LOQ / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/20/11 at 05:43 PM

Group Number: 1279336

Surrogate Quality Control

Limits:	28-143	26-138	17-157	25-181	32-141	28-130
	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	
6488961	76	77	68	64	79	
6488962	76	79	74	59	71	
6488963	80	79	72	62	76	
6488964	78	77	67	60	70	
6488965	72	73	61	60	72	
6488966	79	76	68	60	74	
6488967	81	76	65	57	71	
6488968	96	91	84	70	84	
Blank	89	93	87	64	81	
MS	76	79	74	59	71	
MSD	80	79	72	62	76	
OPR	76	86	85	63	76	
Limits:	28-130	23-140	17-157	24-169	24-185	

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ / MRL.

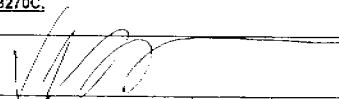
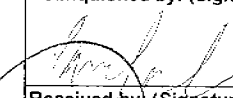
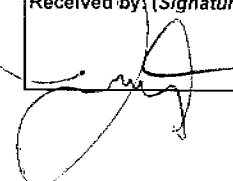
(2) The unspiked result was more than four times the spike added.

acct# 13013

Cup# 1279336

Sample# 6433961-68

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					PRIMARY ANALYTES										Other Instructions and Notes
NOTES: *Primary Analyses as Indicated on sample labels **Secondary Analyses as indicated on sample labels \$ Moisture by EPA 160.3 will be performed on soil in 16 oz. jar collected from the same interval from which Encores were collected Also report Tetralin under EPA Method 8270C.							*Metals EPA 6010/6020B&7471A	*Fluoride EPA 300.0	*SVOCs EPA 8270C & PAHs 8270 SIM	*PCBs/PCTs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	*Hex Chrome EPA 7199	*pH EPA 9045C/9040B	Perchlorate Confirmation by EPA 6850 (10%)		
Samplers Signatures: 																	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers												
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-SS Sleeve				X	X							MS/MSD
SL-019-SA8S-SB-4.0-5.0MS	12.02.11	0910	SOIL	NONE	2-16 oz jars	X	X				X	X	X	X			MS/MSD
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-SS Sleeve			X	X								
SL-020-SA8S-SB-4.0-5.0	12.02.11	1115	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X	X	X		
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-SS Sleeve			X	X								
SL-020-SA8S-SB-9.0-10.0	12.02.11	1145	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X				
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-SS Sleeve			X	X								
SL-021-SA8S-SB-4.0-5.0	12.02.11	1400	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X				
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-SS Sleeve			X	X								
SL-021-SA8S-SB-9.0-10.0	12.02.11	1430	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X				
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-SS Sleeve			X	X								
DUP02-SA8S-QC-120211	12.02.11	0950	SOIL	NONE	1-16 oz jar	X	X			X	X	X	X				
Relinquished by: (Signature) 		Date/Time 12/02/2011 / 1630		Received for Laboratory by: (Signature)												Laboratory: Lancaster Laboratories, Inc.	
Received by: (Signature) 		Date/Time 12/4/11 0910		Airbill No.(s) 8767 9857 5030													

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	l	liter(s)
m3	cubic meter(s)	ul	microliter(s)
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but $\geq$ IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.