

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.

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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

February 02, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/06/2010

Group Number: 1220073

SDG: DX006

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample DescriptionSL-122-SA5C-SB-4.0-5.0 Grab Soil
SL-122-SA5C-SB-9.0-10.0 Grab Soil
SL-129-SA5C-SB-4.0-5.0 Grab Soil
SL-129-SA5C-SB-9.0-10.0 Grab Soil
SL-112-SA5C-SB-4.0-5.0 Grab Soil
SL-112-SA5C-SB-4.0-5.0MS Grab Soil
SL-112-SA5C-SB-4.0-5.0MSD Grab Soil
DUP06-SA5C-QC-110510 Grab Soil
EB05-SA5C-110510 Grab WaterLancaster Labs (LLI) #6133915
6133916
6133917
6133918
6133919
6133920
6133921
6133922
6133923

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,



Charles J. Neslund
Manager



Analysis Report

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Sample Description: SL-122-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-4.0-5.0

LLI Sample # SW 6133915
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:45

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1224 SDG#: DX006-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	9.6	0.50	0.50	1

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

Sample Description: SL-122-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-4.0-5.0

LLI Sample # SW 6133915
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:45

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1224 SDG#: DX006-15

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	0.0561 JBQ	0.0137	1.11	1
11031	12378-PeCDD	40321-76-4	0.0802 JBQ	0.0155	5.53	1
11031	123478-HxCDD	39227-28-6	0.0262 JBQ	0.0140	5.53	1
11031	123678-HxCDD	57653-85-7	0.0379 JBQ	0.0144	5.53	1
11031	123789-HxCDD	19408-74-3	0.0590 JBQ	0.0143	5.53	1
11031	1234678-HpCDD	35822-46-9	0.275 JB	0.0165	5.53	1
11031	OCDD	3268-87-9	1.32 JB	0.0278	11.1	1
11031	2378-TCDF	51207-31-9	0.0167 JQ	0.0152	1.11	1
11031	12378-PeCDF	57117-41-6	0.130 JB	0.00918	5.53	1
11031	23478-PeCDF	57117-31-4	0.135 JB	0.00874	5.53	1
11031	123478-HxCDF	70648-26-9	0.106 JBQ	0.0140	5.53	1
11031	123678-HxCDF	57117-44-9	0.0901 JBQ	0.0134	5.53	1
11031	123789-HxCDF	72918-21-9	0.0931 JBQ	0.0168	5.53	1
11031	234678-HxCDF	60851-34-5	0.111 JB	0.0138	5.53	1
11031	1234678-HpCDF	67562-39-4	0.397 JBQ	0.00929	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0909 JB	0.0142	5.53	1
11031	OCDF	39001-02-0	0.213 JB	0.0169	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	55	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	64	28 - 130
13C12-123789-HxCDD	66	28 - 130
13C12-1234678-HpCDD	60	23 - 140
13C12-OCDD	48	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	62	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	41	17 - 157
13C12-1278-TCDD (CRS)	64	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-122-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-4.0-5.0

LLI Sample # SW 6133915
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:45

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1224 SDG#: DX006-15

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-122-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-4.0-5.0

LLI Sample # SW 6133915
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:45

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1224 SDG#: DX006-15

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	10321001	11/21/2010 15:01	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-122-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-9.0-10.0

LLI Sample # SW 6133916
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1229 SDG#: DX006-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-122-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-9.0-10.0

LLI Sample # SW 6133916
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1229 SDG#: DX006-16

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	0.0298 JBQ	0.0127	1.06	1
11031	12378-PeCDD	40321-76-4	0.0730 JB	0.0164	5.32	1
11031	123478-HxCDD	39227-28-6	0.0236 JBQ	0.0139	5.32	1
11031	123678-HxCDD	57653-85-7	0.0272 JBQ	0.0139	5.32	1
11031	123789-HxCDD	19408-74-3	0.0306 JBQ	0.0136	5.32	1
11031	1234678-HpCDD	35822-46-9	0.146 JB	0.0151	5.32	1
11031	OCDD	3268-87-9	0.405 JB	0.0227	10.6	1
11031	2378-TCDF	51207-31-9	0.0274 JQ	0.0129	1.06	1
11031	12378-PeCDF	57117-41-6	0.0869 JB	0.00819	5.32	1
11031	23478-PeCDF	57117-31-4	0.0952 JBQ	0.00755	5.32	1
11031	123478-HxCDF	70648-26-9	0.0631 JB	0.0127	5.32	1
11031	123678-HxCDF	57117-44-9	0.0666 JB	0.0120	5.32	1
11031	123789-HxCDF	72918-21-9	0.0543 JB	0.0150	5.32	1
11031	234678-HxCDF	60851-34-5	0.0660 JBQ	0.0119	5.32	1
11031	1234678-HpCDF	67562-39-4	0.269 JBQ	0.00883	5.32	1
11031	1234789-HpCDF	55673-89-7	0.0417 JB	0.0139	5.32	1
11031	OCDF	39001-02-0	0.181 JB	0.0176	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	88	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	54	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	42	17 - 157
13C12-1278-TCDD (CRS)	77	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-122-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-9.0-10.0

LLI Sample # SW 6133916
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1229 SDG#: DX006-16

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-122-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-122-SA5C-SB-9.0-10.0

LLI Sample # SW 6133916
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 11:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/06/2010 10:20

Suite 210

Reported: 02/02/2011 19:04

Chantilly VA 20151

D1229 SDG#: DX006-16

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	10321001	11/21/2010 16:01	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-129-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-4.0-5.0

LLI Sample # SW 6133917
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1294 SDG#: DX006-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-129-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-4.0-5.0

LLI Sample # SW 6133917
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1294 SDG#: DX006-17

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	0.0120 U	0.0120	1.12	1
11031	12378-PeCDD	40321-76-4	0.0877 JBQ	0.0439	5.59	1
11031	123478-HxCDD	39227-28-6	0.0146 U	0.0146	5.59	1
11031	123678-HxCDD	57653-85-7	0.0332 JBQ	0.0154	5.59	1
11031	123789-HxCDD	19408-74-3	0.0599 JBQ	0.0153	5.59	1
11031	1234678-HpCDD	35822-46-9	0.290 JBQ	0.0207	5.59	1
11031	OCDD	3268-87-9	1.03 JB	0.0358	11.2	1
11031	2378-TCDF	51207-31-9	0.0194 JQ	0.0144	1.12	1
11031	12378-PeCDF	57117-41-6	0.0599 JBQ	0.0113	5.59	1
11031	23478-PeCDF	57117-31-4	0.0645 JB	0.0558	5.59	1
11031	123478-HxCDF	70648-26-9	0.128 JBQ	0.0183	5.59	1
11031	123678-HxCDF	57117-44-9	0.104 JBQ	0.0162	5.59	1
11031	123789-HxCDF	72918-21-9	0.115 JB	0.0221	5.59	1
11031	234678-HxCDF	60851-34-5	0.195 JBQ	0.0166	5.59	1
11031	1234678-HpCDF	67562-39-4	0.861 JB	0.0108	5.59	1
11031	1234789-HpCDF	55673-89-7	0.0899 JBQ	0.0184	5.59	1
11031	OCDF	39001-02-0	0.445 JBQ	0.0216	11.2	1

A disturbance in the PFK response for this sample affected the results for several penta- substituted compounds. The sample was re-extracted outside of the project specified holding time. A PFK disturbance was not observed for the re-extracted sample. Comparable native compound results were observed between the two extractions.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	45	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	62	28 - 130
13C12-123789-HxCDD	61	28 - 130
13C12-1234678-HpCDD	57	23 - 140
13C12-OCDD	48	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	42	21 - 178
13C12-123478-HxCDF	58	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	53	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	45	26 - 138
13C12-OCDF	35	17 - 157
13C12-1278-TCDD (CRS)	78	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

Sample Description: SL-129-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-4.0-5.0

LLI Sample # SW 6133917
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1294 SDG#: DX006-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
E	Exceeds calibration range					
C	Confirmed quantitation on secondary GC column					
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-129-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-4.0-5.0

LLI Sample # SW 6133917
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/06/2010 10:20

Suite 210

Reported: 02/02/2011 19:04

Chantilly VA 20151

D1294 SDG#: DX006-17

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	10321001	11/21/2010 17:01	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11006001	01/06/2011 13:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-129-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-9.0-10.0

LLI Sample # SW 6133918
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:55

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1299 SDG#: DX006-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-129-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-9.0-10.0

LLI Sample # SW 6133918
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:55

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1299 SDG#: DX006-18

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	0.0182 U	0.0182	1.15	1
11031	12378-PeCDD	40321-76-4	0.168 JQ	0.0345	5.75	1
11031	123478-HxCDD	39227-28-6	0.257 JBQ	0.0300	5.75	1
11031	123678-HxCDD	57653-85-7	1.14 JB	0.0304	5.75	1
11031	123789-HxCDD	19408-74-3	0.660 JB	0.0283	5.75	1
11031	1234678-HpCDD	35822-46-9	27.4 B	0.0627	5.75	1
11031	OCDD	3268-87-9	297 B	0.0551	11.5	1
11031	2378-TCDF	51207-31-9	0.0343 JBQ	0.0265	1.15	1
11031	12378-PeCDF	57117-41-6	0.123 JBQ	0.0137	5.75	1
11031	23478-PeCDF	57117-31-4	0.0894 JBQ	0.0138	5.75	1
11031	123478-HxCDF	70648-26-9	0.136 JB	0.0234	5.75	1
11031	123678-HxCDF	57117-44-9	0.206 JB	0.0194	5.75	1
11031	123789-HxCDF	72918-21-9	0.132 JBQ	0.0282	5.75	1
11031	234678-HxCDF	60851-34-5	0.207 JB	0.0223	5.75	1
11031	1234678-HpCDF	67562-39-4	3.04 JB	0.0150	5.75	1
11031	1234789-HpCDF	55673-89-7	0.549 JB	0.0272	5.75	1
11031	OCDF	39001-02-0	6.92 JB	0.0336	11.5	1

The first extraction of this sample could not be concentrated to an appropriate final volume for analysis. The sample was re-extracted outside of the project specific holding time.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	80	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	88	26 - 123
13C12-234678-HxCDF	80	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	99	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	59	17 - 157
13C12-1278-TCDD (CRS)	77	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

Sample Description: SL-129-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-9.0-10.0

LLI Sample # SW 6133918
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:55

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1299 SDG#: DX006-18

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

Sample Description: SL-129-SA5C-SB-9.0-10.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-129-SA5C-SB-9.0-10.0

LLI Sample # SW 6133918
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/06/2010 10:20

Suite 210

Reported: 02/02/2011 19:04

Chantilly VA 20151

D1299 SDG#: DX006-18

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	11006001	01/19/2011 05:54	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11006001	01/06/2011 13:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-112-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133919
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-112-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133919
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19BKG

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	0.0589 U	0.0589	1.10	1
11031	12378-PeCDD	40321-76-4	0.0434 U	0.0434	5.49	1
11031	123478-HxCDD	39227-28-6	0.0302 U	0.0302	5.49	1
11031	123678-HxCDD	57653-85-7	0.0638 JB	0.0314	5.49	1
11031	123789-HxCDD	19408-74-3	0.0991 JBQ	0.0292	5.49	1
11031	1234678-HpCDD	35822-46-9	0.290 JB	0.0315	5.49	1
11031	OCDD	3268-87-9	0.670 JBQ	0.0352	11.0	1
11031	2378-TCDF	51207-31-9	0.0431 U	0.0431	1.10	1
11031	12378-PeCDF	57117-41-6	0.0670 JBQ	0.0225	5.49	1
11031	23478-PeCDF	57117-31-4	0.0825 JBQ	0.0241	5.49	1
11031	123478-HxCDF	70648-26-9	0.0773 JBQ	0.0254	5.49	1
11031	123678-HxCDF	57117-44-9	0.0710 JBQ	0.0193	5.49	1
11031	123789-HxCDF	72918-21-9	0.165 JB	0.0282	5.49	1
11031	234678-HxCDF	60851-34-5	0.133 JBQ	0.0233	5.49	1
11031	1234678-HpCDF	67562-39-4	0.347 JB	0.0169	5.49	1
11031	1234789-HpCDF	55673-89-7	0.0894 JB	0.0299	5.49	1
11031	OCDF	39001-02-0	0.370 JB	0.0431	11.0	1

The initial analysis of this sample contained a response for PFK that interfered with the detection and quantification of several of the penta-substituted compounds. The sample was re-extracted outside of the client specified holding time. An interference from PFK was not observed in the analysis of the re-extracted sample.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	81	28 - 130
13C12-1234678-HpCDD	84	23 - 140
13C12-OCDD	81	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	87	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	103	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	81	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

Sample Description: SL-112-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133919
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
E	Exceeds calibration range					
C	Confirmed quantitation on secondary GC column					
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-112-SA5C-SB-4.0-5.0 Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133919
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/06/2010 10:20

Suite 210

Reported: 02/02/2011 19:04

Chantilly VA 20151

D1124 SDG#: DX006-19BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	11007001	01/19/2011 17:58	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11007001	01/07/2011 13:00	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-112-SA5C-SB-4.0-5.0MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133920
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-112-SA5C-SB-4.0-5.0MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133920
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MS

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	19.6	B	0.0234	1
11031	12378-PeCDD	40321-76-4	102	B	0.0382	1
11031	123478-HxCDD	39227-28-6	104	B	0.0409	1
11031	123678-HxCDD	57653-85-7	101	B	0.0438	1
11031	123789-HxCDD	19408-74-3	103	B	0.0429	1
11031	1234678-HpCDD	35822-46-9	100	B	0.0523	1
11031	OCDD	3268-87-9	204	B	0.0727	1
11031	2378-TCDF	51207-31-9	20.9		0.0277	1
11031	12378-PeCDF	57117-41-6	102	B	0.0227	1
11031	23478-PeCDF	57117-31-4	103	B	0.0223	1
11031	123478-HxCDF	70648-26-9	101	B	0.0503	1
11031	123678-HxCDF	57117-44-9	101	B	0.0453	1
11031	123789-HxCDF	72918-21-9	103	B	0.0602	1
11031	234678-HxCDF	60851-34-5	101	B	0.0471	1
11031	1234678-HpCDF	67562-39-4	102	B	0.0456	1
11031	1234789-HpCDF	55673-89-7	103	B	0.0756	1
11031	OCDF	39001-02-0	204	B	0.0660	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	56	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	61	32 - 141
13C12-123678-HxCDD	57	28 - 130
13C12-123789-HxCDD	58	28 - 130
13C12-1234678-HpCDD	53	23 - 140
13C12-OCDD	43	17 - 157
13C12-2378-TCDF	56	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	54	26 - 152
13C12-123678-HxCDF	57	26 - 123
13C12-234678-HxCDF	55	28 - 136
13C12-123789-HxCDF	49	29 - 147
13C12-1234678-HpCDF	59	28 - 143
13C12-1234789-HpCDF	42	26 - 138
13C12-OCDF	33	17 - 157
13C12-1278-TCDD (CRS)	66	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-112-SA5C-SB-4.0-5.0MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133920
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MS

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-112-SA5C-SB-4.0-5.0MS Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133920
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10321001	11/21/2010 19:00	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-112-SA5C-SB-4.0-5.0MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133921
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-112-SA5C-SB-4.0-5.0MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133921
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MSD

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	20.5	B	0.0191	1
11031	12378-PeCDD	40321-76-4	105	B	0.0314	1
11031	123478-HxCDD	39227-28-6	106	B	0.0348	1
11031	123678-HxCDD	57653-85-7	102	B	0.0347	1
11031	123789-HxCDD	19408-74-3	103	B	0.0357	1
11031	1234678-HpCDD	35822-46-9	100	B	0.0470	1
11031	OCDD	3268-87-9	57.2	B	0.0712	1
11031	2378-TCDF	51207-31-9	21.0		0.0249	1
11031	12378-PeCDF	57117-41-6	106	B	0.0202	1
11031	23478-PeCDF	57117-31-4	104	B	0.0191	1
11031	123478-HxCDF	70648-26-9	102	B	0.0461	1
11031	123678-HxCDF	57117-44-9	102	B	0.0426	1
11031	123789-HxCDF	72918-21-9	104	B	0.0527	1
11031	234678-HxCDF	60851-34-5	103	B	0.0435	1
11031	1234678-HpCDF	67562-39-4	102	B	0.0472	1
11031	1234789-HpCDF	55673-89-7	103	B	0.0682	1
11031	OCDF	39001-02-0	200	B	0.0570	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	34	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	48	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-112-SA5C-SB-4.0-5.0MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133921
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MSD

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-112-SA5C-SB-4.0-5.0MSD Grab Soil
SSFL Area IV Collocated Soil Sampling
SL-112-SA5C-SB-4.0-5.0

LLI Sample # SW 6133921
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 14:50

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

D1124 SDG#: DX006-19MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10321001	11/21/2010 20:00	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: DUP06-SA5C-QC-110510 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP06-SA5C-QC-110510

LLI Sample # SW 6133922
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 15:00

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DD605 SDG#: DX006-20FD

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	28a 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: DUP06-SA5C-QC-110510 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP06-SA5C-QC-110510

LLI Sample # SW 6133922
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 15:00

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DD605 SDG#: DX006-20FD

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	0.0228 JBQ	0.0112	1.10	1
11031	12378-PeCDD	40321-76-4	0.112 JBQ	0.0211	5.51	1
11031	123478-HxCDD	39227-28-6	0.108 JBQ	0.0205	5.51	1
11031	123678-HxCDD	57653-85-7	0.117 JB	0.0199	5.51	1
11031	123789-HxCDD	19408-74-3	0.204 JB	0.0213	5.51	1
11031	1234678-HpCDD	35822-46-9	0.646 JB	0.0240	5.51	1
11031	OCDD	3268-87-9	5.26 JB	0.0314	11.0	1
11031	2378-TCDF	51207-31-9	0.0741 JQ	0.0211	1.10	1
11031	12378-PeCDF	57117-41-6	0.221 JB	0.0167	5.51	1
11031	23478-PeCDF	57117-31-4	0.301 JBQ	0.0153	5.51	1
11031	123478-HxCDF	70648-26-9	0.506 JBQ	0.0205	5.51	1
11031	123678-HxCDF	57117-44-9	0.296 JB	0.0195	5.51	1
11031	123789-HxCDF	72918-21-9	0.200 JB	0.0231	5.51	1
11031	234678-HxCDF	60851-34-5	0.247 JB	0.0196	5.51	1
11031	1234678-HpCDF	67562-39-4	0.910 JB	0.0155	5.51	1
11031	1234789-HpCDF	55673-89-7	0.228 JB	0.0219	5.51	1
11031	OCDF	39001-02-0	0.751 JB	0.0246	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	60	23 - 140
13C12-OCDD	52	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	51	26 - 138
13C12-OCDF	40	17 - 157
13C12-1278-TCDD (CRS)	80	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

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Page 3 of 4

Sample Description: DUP06-SA5C-QC-110510 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP06-SA5C-QC-110510

LLI Sample # SW 6133922
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 15:00

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DD605 SDG#: DX006-20FD

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

Sample Description: DUP06-SA5C-QC-110510 Grab Soil
SSFL Area IV Collocated Soil Sampling
DUP06-SA5C-QC-110510

LLI Sample # SW 6133922
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 15:00

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DD605 SDG#: DX006-20FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10321001	11/21/2010 21:00	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10321001	11/17/2010 15:45	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10314162401A	11/11/2010 05:21	William C Schwebel	1

Sample Description: EB05-SA5C-110510 Grab Water
SSFL Area IV Collocated Soil Sampling
EB05-SA5C-110510

LLI Sample # WW 6133923
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 13:30

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DEB05 SDG#: DX006-21EB*

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	0.167	U	0.167	1.94	1
10915	12378-PeCDD	40321-76-4	0.189	U	0.189	9.68	1
10915	123478-HxCDD	39227-28-6	0.132	U	0.132	9.68	1
10915	123678-HxCDD	57653-85-7	0.220	JBQ	0.129	9.68	1
10915	123789-HxCDD	19408-74-3	0.132	U	0.132	9.68	1
10915	1234678-HpCDD	35822-46-9	1.21	JBQ	0.169	9.68	1
10915	OCDD	3268-87-9	2.53	JB	0.200	19.4	1
10915	2378-TCDF	51207-31-9	0.129	U	0.129	1.94	1
10915	12378-PeCDF	57117-41-6	0.232	JBQ	0.108	9.68	1
10915	23478-PeCDF	57117-31-4	0.348	JBQ	0.101	9.68	1
10915	123478-HxCDF	70648-26-9	0.159	JB	0.107	9.68	1
10915	123678-HxCDF	57117-44-9	0.156	JB	0.104	9.68	1
10915	123789-HxCDF	72918-21-9	0.103	U	0.103	9.68	1
10915	234678-HxCDF	60851-34-5	0.360	JB	0.0985	9.68	1
10915	1234678-HpCDF	67562-39-4	0.555	JB	0.0731	9.68	1
10915	1234789-HpCDF	55673-89-7	0.397	JBQ	0.0871	9.68	1
10915	OCDF	39001-02-0	0.615	JBQ	0.184	19.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	52	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	63	28 - 130
13C12-123789-HxCDD	62	28 - 130
13C12-1234678-HpCDD	61	23 - 140
13C12-OCDD	54	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	63	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	49	17 - 157
13C12-1278-TCDD (CRS)	58	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: EB05-SA5C-110510 Grab Water
SSFL Area IV Collocated Soil Sampling
EB05-SA5C-110510

LLI Sample # WW 6133923
LLI Group # 1220073
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/05/2010 13:30

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

Submitted: 11/06/2010 10:20

Reported: 02/02/2011 19:04

DEB05 SDG#: DX006-21EB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
F	Interference is present					
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	10317002	11/17/2010 13:53	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	10317002	11/13/2010 08:30	Deborah M Zimmerman	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 02/02/11 at 07:04 PM

Group Number: 1220073

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10314162401A 28a Moisture Content by 160.3	Sample number(s): 6133915-6133922				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10317002	Sample number(s): 6133923								
2378-TCDD	0.301 J	0.169	2.00	pg/l	88		67-158		
12378-PeCDD	0.339 J	0.175	10.0	pg/l	89		70-142		
123478-HxCDD	0.151 U	0.151	10.0	pg/l	92		70-164		
123678-HxCDD	0.239 J	0.157	10.0	pg/l	90		76-134		
123789-HxCDD	0.353 J	0.149	10.0	pg/l	89		64-162		
1234678-HpCDD	1.41 J	0.186	10.0	pg/l	90		70-140		
OCDD	3.00 J	0.172	20.0	pg/l	91		78-144		
2378-TCDF	0.151 U	0.151	2.00	pg/l	91		75-158		
12378-PeCDF	0.286 J	0.108	10.0	pg/l	92		80-134		
23478-PeCDF	0.300 J	0.0936	10.0	pg/l	91		68-160		
123478-HxCDF	0.505 J	0.107	10.0	pg/l	91		72-134		
123678-HxCDF	0.251 J	0.105	10.0	pg/l	90		84-130		
123789-HxCDF	0.406 J	0.108	10.0	pg/l	91		78-130		
234678-HxCDF	0.183 J	0.0990	10.0	pg/l	90		70-156		
1234678-HpCDF	1.01 J	0.0736	10.0	pg/l	90		82-122		
1234789-HpCDF	0.556 J	0.0926	10.0	pg/l	94		78-138		
OCDF	1.41 J	0.226	20.0	pg/l	93		63-170		

Batch number: 10321001	Sample number(s): 6133915-6133917, 6133920-6133922								
2378-TCDD	0.0129 J	0.00980	1.00	ng/kg	91		67-158		
12378-PeCDD	0.0247 J	0.0138	5.00	ng/kg	94		70-142		
123478-HxCDD	0.0532 J	0.0124	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0310 J	0.0120	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0537 J	0.0132	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.283 J	0.0167	5.00	ng/kg	96		70-140		
OCDD	0.512 J	0.0160	10.0	ng/kg	96		78-144		
2378-TCDF	0.0158 U	0.0158	1.00	ng/kg	100		75-158		
12378-PeCDF	0.0521 J	0.0116	5.00	ng/kg	95		80-134		
23478-PeCDF	0.144 J	0.00920	5.00	ng/kg	95		68-160		
123478-HxCDF	0.185 J	0.0188	5.00	ng/kg	94		72-134		
123678-HxCDF	0.103 J	0.0171	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0890 J	0.0195	5.00	ng/kg	97		78-130		
234678-HxCDF	0.167 J	0.0168	5.00	ng/kg	95		70-156		
1234678-HpCDF	0.756 J	0.00950	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0968 J	0.0135	5.00	ng/kg	98		78-138		
OCDF	0.451 J	0.0177	10.0	ng/kg	97		63-170		

Batch number: 11006001	Sample number(s): 6133918								
2378-TCDD	0.0130 U	0.0130	1.00	ng/kg	90		67-158		

*- Outside of specification

** - This limit was used in 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: 02/02/11 at 07:04 PM

Group Number: 1220073

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
12378-PeCDD	0.0207 U	0.0207	5.00	ng/kg	92		70-142		
123478-HxCDD	0.0156 J	0.0121	5.00	ng/kg	92		70-164		
123678-HxCDD	0.0249 J	0.0126	5.00	ng/kg	91		76-134		
123789-HxCDD	0.0161 J	0.0117	5.00	ng/kg	93		64-162		
1234678-HpCDD	0.118 J	0.0195	5.00	ng/kg	91		70-140		
OCDD	0.366 J	0.0243	10.0	ng/kg	90		78-144		
2378-TCDF	0.0160 J	0.0138	1.00	ng/kg	102		75-158		
12378-PeCDF	0.0239 J	0.00990	5.00	ng/kg	92		80-134		
23478-PeCDF	0.0586 J	0.00860	5.00	ng/kg	91		68-160		
123478-HxCDF	0.0698 J	0.0117	5.00	ng/kg	87		72-134		
123678-HxCDF	0.0377 J	0.0106	5.00	ng/kg	86		84-130		
123789-HxCDF	0.0373 J	0.0134	5.00	ng/kg	90		78-130		
234678-HxCDF	0.0505 J	0.0104	5.00	ng/kg	87		70-156		
1234678-HpCDF	0.117 J	0.0121	5.00	ng/kg	87		82-122		
1234789-HpCDF	0.0646 J	0.0225	5.00	ng/kg	90		78-138		
OCDF	0.220 J	0.0263	10.0	ng/kg	90		63-170		

Batch number: 11007001

Sample number(s): 6133919

2378-TCDD	0.0733 U	0.0733	1.00	ng/kg	104		67-158		
12378-PeCDD	0.0526 U	0.0526	5.00	ng/kg	111		70-142		
123478-HxCDD	0.0485 J	0.0314	5.00	ng/kg	111		70-164		
123678-HxCDD	0.0470 J	0.0325	5.00	ng/kg	109		76-134		
123789-HxCDD	0.0541 J	0.0303	5.00	ng/kg	108		64-162		
1234678-HpCDD	0.218 J	0.0423	5.00	ng/kg	108		70-140		
OCDD	0.291 J	0.0371	10.0	ng/kg	108		78-144		
2378-TCDF	0.0647 U	0.0647	1.00	ng/kg	124		75-158		
12378-PeCDF	0.0431 J	0.0316	5.00	ng/kg	112		80-134		
23478-PeCDF	0.0990 J	0.0343	5.00	ng/kg	110		68-160		
123478-HxCDF	0.114 J	0.0336	5.00	ng/kg	106		72-134		
123678-HxCDF	0.0761 J	0.0262	5.00	ng/kg	108		84-130		
123789-HxCDF	0.129 J	0.0372	5.00	ng/kg	109		78-130		
234678-HxCDF	0.111 J	0.0280	5.00	ng/kg	106		70-156		
1234678-HpCDF	0.352 J	0.0175	5.00	ng/kg	103		82-122		
1234789-HpCDF	0.0959 J	0.0326	5.00	ng/kg	110		78-138		
OCDF	0.310 J	0.0606	10.0	ng/kg	108		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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10314162401A	Sample number(s): 6133915-6133922 BKG: P133892								
28a Moisture Content by 160.3						8.9	9.4	6	20
Batch number: 10321001	Sample number(s): 6133915-6133917, 6133920-6133922 UNSPK: P133919								
2378-TCDD	89	93	67-158	4	25				
12378-PeCDD	93	95	70-142	3	25				
123478-HxCDD	95	96	70-164	2	25				
123678-HxCDD	92	93	76-134	1	25				
123789-HxCDD	94	94	64-162	0	25				
1234678-HpCDD	91	91	70-140	0	25				
OCDD	93	26*	78-144	113*	25				
2378-TCDF	95	96	75-158	0	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: 02/02/11 at 07:04 PM

Group Number: 1220073

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
12378-PeCDF	93	96	80-134	4	25				
23478-PeCDF	93	94	68-160	1	25				
123478-HxCDF	92	92	72-134	1	25				
123678-HxCDF	92	92	84-130	0	25				
123789-HxCDF	94	95	78-130	1	25				
234678-HxCDF	92	93	70-156	2	25				
1234678-HpCDF	92	92	82-122	0	25				
1234789-HpCDF	94	94	78-138	0	25				
OCDF	93	91	63-170	2	25				

Batch number: 11007001	Sample number(s): 6133919 UNSPK: P166410								
2378-TCDD	116	104	67-158	9	25				
12378-PeCDD	106	108	70-142	1	25				
123478-HxCDD	109	111	70-164	1	25				
123678-HxCDD	107	106	76-134	1	25				
123789-HxCDD	107	109	64-162	2	25				
1234678-HpCDD	112	119	70-140	6	25				
OCDD	180*	165*	78-144	5	25				
2378-TCDF	114	109	75-158	4	25				
12378-PeCDF	111	111	80-134	0	25				
23478-PeCDF	110	107	68-160	3	25				
123478-HxCDF	108	107	72-134	1	25				
123678-HxCDF	108	106	84-130	2	25				
123789-HxCDF	109	108	78-130	1	25				
234678-HxCDF	108	107	70-156	1	25				
1234678-HpCDF	107	112	82-122	5	25				
1234789-HpCDF	110	108	78-138	1	25				
OCDF	108	118	63-170	8	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: 10317002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6133923	52	70	64	63	66	71
Blank	60	74	66	64	67	70
OPR	63	74	66	65	67	69
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
6133923	61	59	49	58	67	66
Blank	63	59	51	66	73	68
OPR	66	57	48	70	74	68

*- Outside of specification

** - This limit was used in 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: 02/02/11 at 07:04 PM

Group Number: 1220073

Surrogate Quality Control

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
6133923	63	62	61	54	65	68
Blank	62	66	62	54	64	69
OPR	65	67	65	58	69	71
Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name:	10a Dioxin/Furan by EPA 1613B					
Batch number:	10321001					
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6133915	55	73	62	64	63	59
6133916	67	84	69	71	71	65
6133917	65	42	58	63	61	53
6133920	56	67	54	57	55	49
6133921	69	83	70	73	73	69
6133922	71	78	63	65	65	62
Blank	67	78	71	74	79	77
MS	56	67	54	57	55	49
MSD	69	83	70	73	73	69
OPR	51	65	58	65	57	45
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
6133915	64	52	41	64	75	66
6133916	72	53	42	77	88	73
6133917	64	45	35	78	45	63
6133920	59	42	33	66	71	61
6133921	75	61	48	76	86	75
6133922	63	51	40	80	80	69
Blank	86	71	62	72	80	82
MS	59	42	33	66	71	61
MSD	75	61	48	76	86	75
OPR	74	44	36	56	75	67
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
6133915	64	66	60	48	55	71
6133916	72	73	66	54	66	83
6133917	62	61	57	48	64	73
6133920	57	58	53	43	56	69
6133921	76	74	71	34	64	83
6133922	66	68	60	52	70	76
Blank	82	81	81	71	62	71
MS	57	58	53	43	56	69
MSD	76	74	71	34	64	83
OPR	65	63	62	50	45	69

*- Outside of specification

** - This limit was used in 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: 02/02/11 at 07:04 PM

Group Number: 1220073

Surrogate Quality Control

Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 11006001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6133918	73	80	78	88	80	72
Blank	69	70	67	71	71	65
OPR	68	69	69	84	72	59
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
6133918	99	68	59	77	81	82
Blank	95	62	55	78	75	78
OPR	97	53	45	78	74	79
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
6133918	80	82	79	73	75	88
Blank	75	78	77	72	64	67
OPR	78	77	75	65	66	81
Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 11007001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6133919	74	87	72	87	75	70
Blank	68	77	67	79	75	64
MS	76	89	76	86	77	72
MSD	77	93	79	86	79	76
OPR	70	75	64	82	70	58
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
6133919	103	67	62	81	89	81
Blank	102	63	60	84	85	81
MS	96	69	62	82	92	80
MSD	93	72	62	83	93	80
OPR	104	56	52	79	84	78
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
6133919	74	81	84	81	77	98
Blank	76	80	84	82	69	89
MS	76	79	81	77	80	102

*- Outside of specification

** - This limit was used in 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: 02/02/11 at 07:04 PM

Group Number: 1220073

Surrogate Quality Control

MSD	75	79	82	77	83	103
OPR	74	78	83	81	67	90
Limits:	28-130	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#1220073

sample# 6133915-23

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																		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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260S/M	SVOCs EPA 8270C & PAHs 8270 SIM	TPH B/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7190*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohol/Terphenyls/Glycol EPA 8015B				
Samplers: (Signature) <i>[Signature]</i>																										Amended COC				
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																									
SL-122-SA5C-SB-4.5	11.05.10	1140	soil	none	4 - Encore samplers	X	X																							
SL-122-SA5C-SB-4.0-5.0	11.05.10	1145	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X																
SL-122-SA5C-SB-9.0-10.0	11.05.10	1150	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X																
SL-129-SA5C-SB-4.5	11.05.10	1045	soil	none	4 - Encore samplers	X	X																							
SL-129-SA5C-SB-4.0-5.0	11.05.10	1050	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X															
SL-129-SA5C-SB-9.0-10.0	11.05.10	1055	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X																
SL-112-SA5C-SB-4.5 MS	11.05.10	1445	soil	none	16 - Encore samplers	X	X																							
SL-112-SA5C-SB-4.0-5.0 MS	11.05.10	1450	soil	none	6 - 16 oz jars			X	X	X	X	X	X	X													Consider as one sample			
DUP06-SA5C-110510	11.05.10	1500	soil	none	4 - Encore samplers	X	X																							
DUP06-SA5C-110510	11.05.10	1500	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X													DUP06-SA5C-QC-110510 Per PB on 11/8/10. NLM 11/9/10			
TB-110510	11.05.10	1630	water	HCl	3 - 40 ml VOA vials	X	X																				Trip blank			
EB05-SA5C-110510	11.05.10	1330	water	HCl	3 - 40 ml VOA vials	X	X																							
<i>PB 11.05.10</i>																														
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time	11.05.10	1630	Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Laboratory:																			
Received by: (Signature)	Date/Time			Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Airbill No.	Lancaster Laboratories, Inc.																			
						<i>[Signature]</i>	11/6/10	10:30																						

acct# 13013 Cp# 1220073

sample# 6133915-23

CHAIN OF CUSTODY RECORD

CDM		SSFL AREA IV COLLOCATED SOIL SAMPLING					CHAIN OF CUSTODY RECORD																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																													
Samplers: (Signature) <i>[Signature]</i>																													
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	VOCs/EPA 8260B	1,4-Dioxane EPA 8260S1M	SVOCs EPA 8270C & PAHs 8270 31M	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C		**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohol/Terphenyls/Glycol EPA 8015B		
EB05-SA5C-110510	11.05.10	1330	water	none	7 - 1 Liter amber glass			X					X	X															
EB05-SA5C-110510	11.05.10	1330	water	none	1 - 500 mL poly bottle						X	X			X														
EB05-SA5C-110510	11.05.10	1330	water	HNO ₃	1 - 500 mL poly bottle				X																				
<i>[Large diagonal line across the table with handwritten "PB" and "11/05/10" over it]</i>																													
Relinquished by: (Signature) <i>[Signature]</i>							Relinquished by: (Signature)							Relinquished by: (Signature)							Received for Laboratory by: (Signature)							Laboratory:	
Date/Time: 11.05.10 1630							Date/Time							Date/Time							Date/Time							Lancaster Laboratories, Inc.	
Received by: (Signature)							Received by: (Signature)							Received by: (Signature)							Received by: (Signature)							Airbill No.	
														Noel Butler 11/10/10 10:20															

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.

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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, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/09/2010

Group Number: 1220277

SDG: DX007

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-109-SA5C-SB-4.0-5.0 Soil	6134967
SL-109-SA5C-SB-9.0-10.0 Soil	6134968
SL-107-SA5C-SB-4.0-5.0 Soil	6134969
SL-107-SA5C-SB-9.0-10.0 Soil	6134970
SL-106-SA5C-SB-4.0-5.0 Soil	6134971
SL-106-SA5C-SB-9.0-10.0 Soil	6134972
SL-108-SA5C-SB-4.0-5.0 Soil	6134973
SL-108-SA5C-SB-9.0-10.0 Soil	6134974

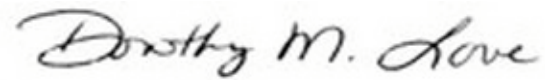
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-109-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-4.0-5.0

LLI Sample # SW 6134967
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0945 SDG#: DX007-01

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	28a Total Solids 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-109-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-4.0-5.0

LLI Sample # SW 6134967
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0945 SDG#: DX007-01

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	0.0482 U	0.0482	1.15	1
11031	12378-PeCDD	40321-76-4	0.0725 JBQ	0.0523	5.75	1
11031	123478-HxCDD	39227-28-6	0.0292 U	0.0292	5.75	1
11031	123678-HxCDD	57653-85-7	0.0539 JBQ	0.0302	5.75	1
11031	123789-HxCDD	19408-74-3	0.0285 U	0.0285	5.75	1
11031	1234678-HpCDD	35822-46-9	0.375 JB	0.0526	5.75	1
11031	OCDD	3268-87-9	1.09 JB	0.0572	11.5	1
11031	2378-TCDF	51207-31-9	0.0486 U	0.0486	1.15	1
11031	12378-PeCDF	57117-41-6	0.0466 JBQ	0.0298	5.75	1
11031	23478-PeCDF	57117-31-4	0.156 JBQ	0.0276	5.75	1
11031	123478-HxCDF	70648-26-9	0.152 JBQ	0.0454	5.75	1
11031	123678-HxCDF	57117-44-9	0.167 JBQ	0.0430	5.75	1
11031	123789-HxCDF	72918-21-9	0.0505 U	0.0505	5.75	1
11031	234678-HxCDF	60851-34-5	0.249 JBQ	0.0446	5.75	1
11031	1234678-HpCDF	67562-39-4	1.08 JB	0.0282	5.75	1
11031	1234789-HpCDF	55673-89-7	0.0905 JBQ	0.0389	5.75	1
11031	OCDF	39001-02-0	0.516 JB	0.0585	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	72	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	81	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-109-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-4.0-5.0

LLI Sample # SW 6134967
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0945 SDG#: DX007-01

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-109-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-4.0-5.0

LLI Sample # SW 6134967
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0945 SDG#: DX007-01

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	10326001	12/02/2010 21:05	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-109-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-9.0-10.0

LLI Sample # SW 6134968
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:50

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0991 SDG#: DX007-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	28a Total Solids by 160.3	n.a.	13.5	0.50	0.50	1

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

Sample Description: SL-109-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-9.0-10.0

LLI Sample # SW 6134968
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:50

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0991 SDG#: DX007-02

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	0.0268 U	0.0268	1.16	1
11031	12378-PeCDD	40321-76-4	0.0298 JBQ	0.0229	5.78	1
11031	123478-HxCDD	39227-28-6	0.0245 U	0.0245	5.78	1
11031	123678-HxCDD	57653-85-7	0.0667 JBQ	0.0249	5.78	1
11031	123789-HxCDD	19408-74-3	0.0649 JBQ	0.0236	5.78	1
11031	1234678-HpCDD	35822-46-9	1.31 JBQ	0.0435	5.78	1
11031	OCDD	3268-87-9	9.51 JB	0.0379	11.6	1
11031	2378-TCDF	51207-31-9	0.0272 U	0.0272	1.16	1
11031	12378-PeCDF	57117-41-6	0.0188 U	0.0188	5.78	1
11031	23478-PeCDF	57117-31-4	0.0901 JBQ	0.0190	5.78	1
11031	123478-HxCDF	70648-26-9	0.164 JB	0.0331	5.78	1
11031	123678-HxCDF	57117-44-9	0.161 JBQ	0.0333	5.78	1
11031	123789-HxCDF	72918-21-9	0.0643 JBQ	0.0383	5.78	1
11031	234678-HxCDF	60851-34-5	0.261 JBQ	0.0331	5.78	1
11031	1234678-HpCDF	67562-39-4	1.48 JBQ	0.0192	5.78	1
11031	1234789-HpCDF	55673-89-7	0.0819 JBQ	0.0224	5.78	1
11031	OCDF	39001-02-0	0.760 JB	0.0405	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	67	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



Analysis Report

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Sample Description: SL-109-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-9.0-10.0

LLI Sample # SW 6134968
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:50

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0991 SDG#: DX007-02

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

Sample Description: SL-109-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-109-SA5C-SB-9.0-10.0

LLI Sample # SW 6134968
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 09:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/09/2010 09:00

Suite 210

Reported: 12/29/2010 16:25

Chantilly VA 20151

D0991 SDG#: DX007-02

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	10326001	12/02/2010 22:05	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-107-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-4.0-5.0

LLI Sample # SW 6134969
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:40

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0745 SDG#: DX007-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids 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-107-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-4.0-5.0

LLI Sample # SW 6134969
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:40

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0745 SDG#: DX007-03

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	0.0310 U	0.0310	1.14	1
11031	12378-PeCDD	40321-76-4	0.0300 U	0.0300	5.68	1
11031	123478-HxCDD	39227-28-6	0.0458 J	0.0200	5.68	1
11031	123678-HxCDD	57653-85-7	0.0316 JBQ	0.0205	5.68	1
11031	123789-HxCDD	19408-74-3	0.0198 U	0.0198	5.68	1
11031	1234678-HpCDD	35822-46-9	0.491 JB	0.0382	5.68	1
11031	OCDD	3268-87-9	1.88 JB	0.0300	11.4	1
11031	2378-TCDF	51207-31-9	0.0299 U	0.0299	1.14	1
11031	12378-PeCDF	57117-41-6	0.0281 JBQ	0.0178	5.68	1
11031	23478-PeCDF	57117-31-4	0.144 JB	0.0169	5.68	1
11031	123478-HxCDF	70648-26-9	0.195 JB	0.0336	5.68	1
11031	123678-HxCDF	57117-44-9	0.154 JBQ	0.0310	5.68	1
11031	123789-HxCDF	72918-21-9	0.0449 JB	0.0388	5.68	1
11031	234678-HxCDF	60851-34-5	0.265 JB	0.0327	5.68	1
11031	1234678-HpCDF	67562-39-4	1.07 JB	0.0169	5.68	1
11031	1234789-HpCDF	55673-89-7	0.102 JBQ	0.0252	5.68	1
11031	OCDF	39001-02-0	0.686 JB	0.0427	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	56	17 - 157
13C12-1278-TCDD (CRS)	81	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-107-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-4.0-5.0

LLI Sample # SW 6134969
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:40

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0745 SDG#: DX007-03

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-107-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-4.0-5.0

LLI Sample # SW 6134969
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:40

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0745 SDG#: DX007-03

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	10326001	12/02/2010 23:04	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-107-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-9.0-10.0

LLI Sample # SW 6134970
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0791 SDG#: DX007-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	14.0	0.50	0.50	1

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

Sample Description: SL-107-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-9.0-10.0

LLI Sample # SW 6134970
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0791 SDG#: DX007-04

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	0.0295 U	0.0295	1.16	1
11031	12378-PeCDD	40321-76-4	0.0269 U	0.0269	5.81	1
11031	123478-HxCDD	39227-28-6	0.0447 JQ	0.0208	5.81	1
11031	123678-HxCDD	57653-85-7	0.0465 JBQ	0.0210	5.81	1
11031	123789-HxCDD	19408-74-3	0.0206 U	0.0206	5.81	1
11031	1234678-HpCDD	35822-46-9	0.903 JB	0.0388	5.81	1
11031	OCDD	3268-87-9	8.46 JB	0.0322	11.6	1
11031	2378-TCDF	51207-31-9	0.0262 U	0.0262	1.16	1
11031	12378-PeCDF	57117-41-6	0.0361 JBQ	0.0166	5.81	1
11031	23478-PeCDF	57117-31-4	0.114 JBQ	0.0157	5.81	1
11031	123478-HxCDF	70648-26-9	0.213 JB	0.0284	5.81	1
11031	123678-HxCDF	57117-44-9	0.150 JBQ	0.0287	5.81	1
11031	123789-HxCDF	72918-21-9	0.0588 JB	0.0350	5.81	1
11031	234678-HxCDF	60851-34-5	0.250 JB	0.0280	5.81	1
11031	1234678-HpCDF	67562-39-4	1.08 JB	0.0185	5.81	1
11031	1234789-HpCDF	55673-89-7	0.100 JBQ	0.0312	5.81	1
11031	OCDF	39001-02-0	0.718 JB	0.0450	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	52	26 - 138
13C12-OCDF	41	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

Sample Description: SL-107-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-9.0-10.0

LLI Sample # SW 6134970
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0791 SDG#: DX007-04

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-107-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-107-SA5C-SB-9.0-10.0

LLI Sample # SW 6134970
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 11:45

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0791 SDG#: DX007-04

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	10326001	12/03/2010 00:04	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-4.0-5.0

LLI Sample # SW 6134971
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:00

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0645 SDG#: DX007-05

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	28a Total Solids by 160.3	n.a.	11.4	0.50	0.50	1

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

Sample Description: SL-106-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-4.0-5.0

LLI Sample # SW 6134971
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:00

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0645 SDG#: DX007-05

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	0.0292 U	0.0292	1.13	1
11031	12378-PeCDD	40321-76-4	0.0249 U	0.0249	5.64	1
11031	123478-HxCDD	39227-28-6	0.0213 U	0.0213	5.64	1
11031	123678-HxCDD	57653-85-7	0.0336 JBQ	0.0218	5.64	1
11031	123789-HxCDD	19408-74-3	0.0261 JBQ	0.0219	5.64	1
11031	1234678-HpCDD	35822-46-9	0.271 JBQ	0.0275	5.64	1
11031	OCDD	3268-87-9	0.519 JB	0.0292	11.3	1
11031	2378-TCDF	51207-31-9	0.0279 U	0.0279	1.13	1
11031	12378-PeCDF	57117-41-6	0.0416 JB	0.0190	5.64	1
11031	23478-PeCDF	57117-31-4	0.152 JBQ	0.0179	5.64	1
11031	123478-HxCDF	70648-26-9	0.144 JB	0.0292	5.64	1
11031	123678-HxCDF	57117-44-9	0.150 JB	0.0275	5.64	1
11031	123789-HxCDF	72918-21-9	0.0682 JBQ	0.0339	5.64	1
11031	234678-HxCDF	60851-34-5	0.248 JB	0.0280	5.64	1
11031	1234678-HpCDF	67562-39-4	1.04 JB	0.0199	5.64	1
11031	1234789-HpCDF	55673-89-7	0.0855 JBQ	0.0314	5.64	1
11031	OCDF	39001-02-0	0.547 JB	0.0378	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	78	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	56	17 - 157
13C12-1278-TCDD (CRS)	83	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-106-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-4.0-5.0

LLI Sample # SW 6134971
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:00

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0645 SDG#: DX007-05

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-106-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-4.0-5.0

LLI Sample # SW 6134971
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:00

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0645 SDG#: DX007-05

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	10326001	12/03/2010 01:03	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-106-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-9.0-10.0

LLI Sample # SW 6134972
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:05

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0691 SDG#: DX007-06

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	28a Total Solids 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-106-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-9.0-10.0

LLI Sample # SW 6134972
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:05

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0691 SDG#: DX007-06

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	0.0299 U	0.0299	1.15	1
11031	12378-PeCDD	40321-76-4	0.0796 JBQ	0.0316	5.75	1
11031	123478-HxCDD	39227-28-6	0.0730 J	0.0348	5.75	1
11031	123678-HxCDD	57653-85-7	0.146 JB	0.0364	5.75	1
11031	123789-HxCDD	19408-74-3	0.109 JBQ	0.0339	5.75	1
11031	1234678-HpCDD	35822-46-9	3.42 JB	0.0433	5.75	1
11031	OCDD	3268-87-9	36.7 B	0.0460	11.5	1
11031	2378-TCDF	51207-31-9	0.0293 U	0.0293	1.15	1
11031	12378-PeCDF	57117-41-6	0.0480 JBQ	0.0194	5.75	1
11031	23478-PeCDF	57117-31-4	0.158 JB	0.0199	5.75	1
11031	123478-HxCDF	70648-26-9	0.158 JB	0.0345	5.75	1
11031	123678-HxCDF	57117-44-9	0.150 JB	0.0352	5.75	1
11031	123789-HxCDF	72918-21-9	0.0802 JBQ	0.0399	5.75	1
11031	234678-HxCDF	60851-34-5	0.273 JBQ	0.0348	5.75	1
11031	1234678-HpCDF	67562-39-4	1.50 JB	0.0477	5.75	1
11031	1234789-HpCDF	55673-89-7	0.151 JBQ	0.0626	5.75	1
11031	OCDF	39001-02-0	1.67 JB	0.0363	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	69	17 - 157
13C12-1278-TCDD (CRS)	82	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-106-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-9.0-10.0

LLI Sample # SW 6134972
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:05

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0691 SDG#: DX007-06

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-106-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-106-SA5C-SB-9.0-10.0

LLI Sample # SW 6134972
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 16:05

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0691 SDG#: DX007-06

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	10326001	12/03/2010 02:03	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-108-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-4.0-5.0

LLI Sample # SW 6134973
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:15

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0845 SDG#: DX007-07

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	28a Total Solids 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-108-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-4.0-5.0

LLI Sample # SW 6134973
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:15

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0845 SDG#: DX007-07

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	0.0304 JQ	0.0237	1.15	1
11031	12378-PeCDD	40321-76-4	0.0901 JB	0.0251	5.77	1
11031	123478-HxCDD	39227-28-6	0.0851 JQ	0.0202	5.77	1
11031	123678-HxCDD	57653-85-7	0.0910 JBQ	0.0209	5.77	1
11031	123789-HxCDD	19408-74-3	0.0921 JBQ	0.0207	5.77	1
11031	1234678-HpCDD	35822-46-9	0.851 JBQ	0.0358	5.77	1
11031	OCDD	3268-87-9	7.27 JB	0.0274	11.5	1
11031	2378-TCDF	51207-31-9	0.0253 U	0.0253	1.15	1
11031	12378-PeCDF	57117-41-6	0.159 JB	0.0171	5.77	1
11031	23478-PeCDF	57117-31-4	0.209 JB	0.0152	5.77	1
11031	123478-HxCDF	70648-26-9	0.257 JB	0.0286	5.77	1
11031	123678-HxCDF	57117-44-9	0.188 JBQ	0.0281	5.77	1
11031	123789-HxCDF	72918-21-9	0.120 JB	0.0315	5.77	1
11031	234678-HxCDF	60851-34-5	0.289 JBQ	0.0278	5.77	1
11031	1234678-HpCDF	67562-39-4	1.30 JB	0.0199	5.77	1
11031	1234789-HpCDF	55673-89-7	0.145 JBQ	0.0234	5.77	1
11031	OCDF	39001-02-0	0.758 JB	0.0288	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	78	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	75	26 - 138
13C12-OCDF	67	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-108-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-4.0-5.0

LLI Sample # SW 6134973
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:15

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0845 SDG#: DX007-07

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

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Page 4 of 4

Sample Description: SL-108-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-4.0-5.0

LLI Sample # SW 6134973
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:15

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0845 SDG#: DX007-07

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	10326001	12/03/2010 06:13	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	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-108-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-9.0-10.0

LLI Sample # SW 6134974
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:20

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0891 SDG#: DX007-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids 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-108-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-9.0-10.0

LLI Sample # SW 6134974
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:20

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0891 SDG#: DX007-08

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	0.0263 JQ	0.0235	1.12	1
11031	12378-PeCDD	40321-76-4	0.0777 JB	0.0246	5.58	1
11031	123478-HxCDD	39227-28-6	0.104 J	0.0313	5.58	1
11031	123678-HxCDD	57653-85-7	0.185 JBQ	0.0316	5.58	1
11031	123789-HxCDD	19408-74-3	0.160 JB	0.0313	5.58	1
11031	1234678-HpCDD	35822-46-9	3.89 JB	0.0301	5.58	1
11031	OCDD	3268-87-9	36.9 B	0.0429	11.2	1
11031	2378-TCDF	51207-31-9	0.0412 JBQ	0.0308	1.12	1
11031	12378-PeCDF	57117-41-6	0.164 JB	0.0204	5.58	1
11031	23478-PeCDF	57117-31-4	0.301 JB	0.0189	5.58	1
11031	123478-HxCDF	70648-26-9	0.369 JBQ	0.0373	5.58	1
11031	123678-HxCDF	57117-44-9	0.323 JB	0.0366	5.58	1
11031	123789-HxCDF	72918-21-9	0.186 JBQ	0.0422	5.58	1
11031	234678-HxCDF	60851-34-5	0.545 JB	0.0362	5.58	1
11031	1234678-HpCDF	67562-39-4	2.83 JB	0.0247	5.58	1
11031	1234789-HpCDF	55673-89-7	0.225 JBQ	0.0321	5.58	1
11031	OCDF	39001-02-0	2.24 JB	0.0369	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	50	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-108-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-9.0-10.0

LLI Sample # SW 6134974
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:20

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0891 SDG#: DX007-08

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-108-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-108-SA5C-SB-9.0-10.0

LLI Sample # SW 6134974
LLI Group # 1220277
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/08/2010 14:20

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

Submitted: 11/09/2010 09:00

Reported: 12/29/2010 16:25

D0891 SDG#: DX007-08

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	10326001	12/03/2010 07:13	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10314162401B	11/11/2010 05:21	William C Schwebel	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/29/10 at 04:25 PM

Group Number: 1220277

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: 10314162401B 28a Total Solids by 160.3	Sample number(s): 6134967-6134974				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: 10326001	Sample number(s): 6134967-6134974								
2378-TCDD	0.0311 U	0.0311	1.00	ng/kg	97		67-158		
12378-PeCDD	0.0303 J	0.0260	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0185 U	0.0185	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0426 J	0.0188	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0231 J	0.0182	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.265 J	0.0224	5.00	ng/kg	97		70-140		
OCDD	0.490 J	0.0244	10.0	ng/kg	96		78-144		
2378-TCDF	0.0578 J	0.0244	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0336 J	0.0168	5.00	ng/kg	96		80-134		
23478-PeCDF	0.157 J	0.0159	5.00	ng/kg	96		68-160		
123478-HxCDF	0.188 J	0.0284	5.00	ng/kg	97		72-134		
123678-HxCDF	0.140 J	0.0266	5.00	ng/kg	96		84-130		
123789-HxCDF	0.105 J	0.0332	5.00	ng/kg	96		78-130		
234678-HxCDF	0.249 J	0.0274	5.00	ng/kg	97		70-156		
1234678-HpCDF	0.976 J	0.0138	5.00	ng/kg	99		82-122		
1234789-HpCDF	0.133 J	0.0203	5.00	ng/kg	98		78-138		
OCDF	0.588 J	0.0363	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: 10314162401B 28a Total Solids by 160.3	Sample number(s): 6134967-6134974				BKG: P134962	11.4	11.9	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: 10a Dioxin/Furan by EPA 1613B

*- Outside of specification

** - This limit was used in 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: 12/29/10 at 04:25 PM

Group Number: 1220277

Surrogate Quality Control

Batch number: 10326001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6134967	72	75	70	73	72	74
6134968	80	78	78	79	78	80
6134969	67	71	66	73	68	70
6134970	67	73	68	69	68	64
6134971	73	77	74	77	74	72
6134972	74	81	78	77	77	77
6134973	76	83	76	76	76	78
6134974	70	77	71	69	71	68
Blank	69	72	69	74	70	71
OPR	69	77	74	76	74	73
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
6134967	73	67	62	81	74	73
6134968	53	74	67	85	84	80
6134969	77	63	56	81	73	71
6134970	70	52	41	79	74	70
6134971	82	64	56	83	78	76
6134972	80	74	69	82	80	79
6134973	74	75	67	85	82	78
6134974	70	63	50	76	76	72
Blank	81	67	62	80	75	75
OPR	78	70	64	83	77	75
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
6134967	74	74	72	66	72	74
6134968	80	80	78	72	79	81
6134969	71	72	70	64	66	73
6134970	72	71	68	60	70	73
6134971	80	77	76	70	73	78
6134972	79	79	78	74	76	79
6134973	76	76	75	69	79	80
6134974	70	72	70	61	70	74
Blank	74	74	76	71	68	74
OPR	77	76	75	71	71	75
Limits:	28-130	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 1220277 6134967-74

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 808Z	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A		**N-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohol/Terphenyls/Glycol EPA 8015B
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																						
SL-109-SA5C-SB-4.5	11.08.10	0940	soil	none	4 - Encore samplers	X	X																				
SL-109-SA5C-SB-4.0-5.0	11.08.10	0945	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-109-SA5C-SB-9.0-10.0	11.08.10	0950	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-107-SA5C-SB-4.5	11.08.10	1135	soil	none	4 - Encore samplers	X	X																				
SL-107-SA5C-SB-4.0-5.0	11.08.10	1140	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-107-SA5C-SB-9.0-10.0	11.08.10	1145	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-106-SA5C-SB-4.5	11.08.10	1555	soil	none	4 - Encore samplers	X	X																				
SL-106-SA5C-SB-4.0-5.0	11.08.10	1600	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-106-SA5C-SB-9.0-10.0	11.08.10	1605	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-108-SA5C-SB-4.5	11.08.10	1410	soil	none	4 - Encore samplers	X	X																				
SL-108-SA5C-SB-4.0-5.0	11.08.10	1415	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
SL-108-SA5C-SB-9.0-10.0	11.08.10	1420	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X												
TB-110810	11.08.10	1630	water	HCl	3 - 40 ml VOA vials	X	X																			Trip blank	
Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)		Date/Time		Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Date/Time		Laboratory:													
<i>[Signature]</i>	11.08.10 1645									<i>[Signature]</i>				Lancaster Laboratories, Inc.													
Received by: (Signature)	Date/Time	Received by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Airbill No.		Date/Time															
<i>FedEx Courier</i>												11/9/10 900															

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.



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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 26, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/10/2010

Group Number: 1220508

SDG: DX007

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-102-SA5C-SB-4.0-5.0 Soil	6136203
SL-099-SA5C-SB-4.0-5.0 Soil	6136204
SL-099-SA5C-SB-9.0-10.0 Soil	6136205
SL-098-SA5C-SB-4.0-5.0 Soil	6136206
SL-098-SA5C-SB-9.0-10.0 Soil	6136207
EB06-SA5C-110910 Water	6136208

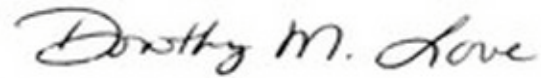
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-102-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA5C-SB-4.0-5.0

LLI Sample # SW 6136203
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 10:55

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D0245 SDG#: DX007-09

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	28a Total Solids by 160.3	n.a.	12.9	0.50	0.50	1

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

Sample Description: SL-102-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA5C-SB-4.0-5.0

LLI Sample # SW 6136203
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 10:55

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D0245 SDG#: DX007-09

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	0.0253 U	0.0253	1.15	1
11031	12378-PeCDD	40321-76-4	0.0330 JB	0.0251	5.74	1
11031	123478-HxCDD	39227-28-6	0.0218 U	0.0218	5.74	1
11031	123678-HxCDD	57653-85-7	0.0356 JB	0.0225	5.74	1
11031	123789-HxCDD	19408-74-3	0.0319 JB	0.0211	5.74	1
11031	1234678-HpCDD	35822-46-9	0.326 JBQ	0.0336	5.74	1
11031	OCDD	3268-87-9	0.580 JBQ	0.0361	11.5	1
11031	2378-TCDF	51207-31-9	0.0261 U	0.0261	1.15	1
11031	12378-PeCDF	57117-41-6	0.0468 JB	0.0152	5.74	1
11031	23478-PeCDF	57117-31-4	0.161 JB	0.0149	5.74	1
11031	123478-HxCDF	70648-26-9	0.228 JB	0.0294	5.74	1
11031	123678-HxCDF	57117-44-9	0.126 JB	0.0272	5.74	1
11031	123789-HxCDF	72918-21-9	0.109 JBQ	0.0355	5.74	1
11031	234678-HxCDF	60851-34-5	0.261 JB	0.0286	5.74	1
11031	1234678-HpCDF	67562-39-4	0.980 JB	0.0187	5.74	1
11031	1234789-HpCDF	55673-89-7	0.139 JB	0.0288	5.74	1
11031	OCDF	39001-02-0	0.589 JB	0.0361	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	74	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	81	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-102-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA5C-SB-4.0-5.0

LLI Sample # SW 6136203
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 10:55

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D0245 SDG#: DX007-09

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-102-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-102-SA5C-SB-4.0-5.0

LLI Sample # SW 6136203
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 10:55

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2010 09:00

Suite 210

Reported: 12/26/2010 12:09

Chantilly VA 20151

D0245 SDG#: DX007-09

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	10326001	12/03/2010 08:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-099-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-4.0-5.0

LLI Sample # SW 6136204
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9945 SDG#: DX007-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	11.7	0.50	0.50	1

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

Sample Description: SL-099-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-4.0-5.0

LLI Sample # SW 6136204
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9945 SDG#: DX007-10

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	0.0253 U	0.0253	1.13	1
11031	12378-PeCDD	40321-76-4	0.0200 U	0.0200	5.66	1
11031	123478-HxCDD	39227-28-6	0.0173 U	0.0173	5.66	1
11031	123678-HxCDD	57653-85-7	0.0469 JBQ	0.0177	5.66	1
11031	123789-HxCDD	19408-74-3	0.0364 JBQ	0.0170	5.66	1
11031	1234678-HpCDD	35822-46-9	0.303 JB	0.0262	5.66	1
11031	OCDD	3268-87-9	0.704 JB	0.0296	11.3	1
11031	2378-TCDF	51207-31-9	0.0225 U	0.0225	1.13	1
11031	12378-PeCDF	57117-41-6	0.0183 JBQ	0.0153	5.66	1
11031	23478-PeCDF	57117-31-4	0.108 JBQ	0.0148	5.66	1
11031	123478-HxCDF	70648-26-9	0.164 JB	0.0258	5.66	1
11031	123678-HxCDF	57117-44-9	0.106 JBQ	0.0251	5.66	1
11031	123789-HxCDF	72918-21-9	0.0297 U	0.0297	5.66	1
11031	234678-HxCDF	60851-34-5	0.233 JBQ	0.0256	5.66	1
11031	1234678-HpCDF	67562-39-4	0.979 JB	0.0155	5.66	1
11031	1234789-HpCDF	55673-89-7	0.103 JB	0.0215	5.66	1
11031	OCDF	39001-02-0	0.494 JB	0.0316	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	65	17 - 157
13C12-1278-TCDD (CRS)	82	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-099-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-4.0-5.0

LLI Sample # SW 6136204
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9945 SDG#: DX007-10

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

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Sample Description: SL-099-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-4.0-5.0

LLI Sample # SW 6136204
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9945 SDG#: DX007-10

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	10326001	12/03/2010 09:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-099-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-9.0-10.0

LLI Sample # SW 6136205
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:20

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9991 SDG#: DX007-11

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	28a Total Solids 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-099-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-9.0-10.0

LLI Sample # SW 6136205
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:20

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9991 SDG#: DX007-11

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	0.0285 U	0.0285	1.10	1
11031	12378-PeCDD	40321-76-4	0.0361 JBQ	0.0219	5.48	1
11031	123478-HxCDD	39227-28-6	0.0256 JQ	0.0236	5.48	1
11031	123678-HxCDD	57653-85-7	0.0511 JBQ	0.0239	5.48	1
11031	123789-HxCDD	19408-74-3	0.0588 JB	0.0231	5.48	1
11031	1234678-HpCDD	35822-46-9	1.33 JB	0.0414	5.48	1
11031	OCDD	3268-87-9	13.9 B	0.0412	11.0	1
11031	2378-TCDF	51207-31-9	0.0294 U	0.0294	1.10	1
11031	12378-PeCDF	57117-41-6	0.0309 JB	0.0182	5.48	1
11031	23478-PeCDF	57117-31-4	0.130 JBQ	0.0181	5.48	1
11031	123478-HxCDF	70648-26-9	0.182 JB	0.0309	5.48	1
11031	123678-HxCDF	57117-44-9	0.129 JBQ	0.0292	5.48	1
11031	123789-HxCDF	72918-21-9	0.0683 JBQ	0.0405	5.48	1
11031	234678-HxCDF	60851-34-5	0.213 JBQ	0.0303	5.48	1
11031	1234678-HpCDF	67562-39-4	1.18 JB	0.0178	5.48	1
11031	1234789-HpCDF	55673-89-7	0.0933 JB	0.0302	5.48	1
11031	OCDF	39001-02-0	0.652 JB	0.0456	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	83	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	46	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-099-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-9.0-10.0

LLI Sample # SW 6136205
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:20

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9991 SDG#: DX007-11

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

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Sample Description: SL-099-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-099-SA5C-SB-9.0-10.0

LLI Sample # SW 6136205
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 15:20

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9991 SDG#: DX007-11

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	10326001	12/03/2010 10:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-098-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-4.0-5.0

LLI Sample # SW 6136206
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:10

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9845 SDG#: DX007-12

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	28a Total Solids 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-098-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-4.0-5.0

LLI Sample # SW 6136206
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:10

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9845 SDG#: DX007-12

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	0.0363 U	0.0363	1.11	1
11031	12378-PeCDD	40321-76-4	0.0291 U	0.0291	5.57	1
11031	123478-HxCDD	39227-28-6	0.0217 U	0.0217	5.57	1
11031	123678-HxCDD	57653-85-7	0.0222 U	0.0222	5.57	1
11031	123789-HxCDD	19408-74-3	0.0228 U	0.0228	5.57	1
11031	1234678-HpCDD	35822-46-9	0.231 JBQ	0.0372	5.57	1
11031	OCDD	3268-87-9	1.64 JB	0.0455	11.1	1
11031	2378-TCDF	51207-31-9	0.0329 U	0.0329	1.11	1
11031	12378-PeCDF	57117-41-6	0.0192 U	0.0192	5.57	1
11031	23478-PeCDF	57117-31-4	0.0775 JBQ	0.0180	5.57	1
11031	123478-HxCDF	70648-26-9	0.102 JBQ	0.0235	5.57	1
11031	123678-HxCDF	57117-44-9	0.0602 JBQ	0.0227	5.57	1
11031	123789-HxCDF	72918-21-9	0.0666 JBQ	0.0280	5.57	1
11031	234678-HxCDF	60851-34-5	0.140 JBQ	0.0234	5.57	1
11031	1234678-HpCDF	67562-39-4	0.611 JB	0.0178	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0592 JBQ	0.0287	5.57	1
11031	OCDF	39001-02-0	0.358 JBQ	0.0482	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	64	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	63	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	63	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	61	28 - 136
13C12-123789-HxCDF	61	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	47	17 - 157
13C12-1278-TCDD (CRS)	84	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-098-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-4.0-5.0

LLI Sample # SW 6136206
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:10

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9845 SDG#: DX007-12

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-098-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-4.0-5.0

LLI Sample # SW 6136206
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/10/2010 09:00

Suite 210

Reported: 12/26/2010 12:09

Chantilly VA 20151

D9845 SDG#: DX007-12

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	10326001	12/03/2010 11:11	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Sample Description: SL-098-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-9.0-10.0

LLI Sample # SW 6136207
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9891 SDG#: DX007-13

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	28a Total Solids by 160.3	n.a.	12.1	0.50	0.50	1

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

Sample Description: SL-098-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-9.0-10.0

LLI Sample # SW 6136207
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9891 SDG#: DX007-13

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	0.0248 U	0.0248	1.14	1
11031	12378-PeCDD	40321-76-4	0.0235 U	0.0235	5.69	1
11031	123478-HxCDD	39227-28-6	0.0167 U	0.0167	5.69	1
11031	123678-HxCDD	57653-85-7	0.0171 U	0.0171	5.69	1
11031	123789-HxCDD	19408-74-3	0.0163 U	0.0163	5.69	1
11031	1234678-HpCDD	35822-46-9	0.175 JBQ	0.0237	5.69	1
11031	OCDD	3268-87-9	0.693 JBQ	0.0223	11.4	1
11031	2378-TCDF	51207-31-9	0.0210 U	0.0210	1.14	1
11031	12378-PeCDF	57117-41-6	0.0123 U	0.0123	5.69	1
11031	23478-PeCDF	57117-31-4	0.0519 JB	0.0122	5.69	1
11031	123478-HxCDF	70648-26-9	0.0451 JB	0.0141	5.69	1
11031	123678-HxCDF	57117-44-9	0.0304 JBQ	0.0130	5.69	1
11031	123789-HxCDF	72918-21-9	0.0167 U	0.0167	5.69	1
11031	234678-HxCDF	60851-34-5	0.0460 JB	0.0139	5.69	1
11031	1234678-HpCDF	67562-39-4	0.285 JB	0.0107	5.69	1
11031	1234789-HpCDF	55673-89-7	0.0366 JBQ	0.0177	5.69	1
11031	OCDF	39001-02-0	0.199 JBQ	0.0312	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	59	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-098-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-9.0-10.0

LLI Sample # SW 6136207
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9891 SDG#: DX007-13

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-098-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-098-SA5C-SB-9.0-10.0

LLI Sample # SW 6136207
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 13:15

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

D9891 SDG#: DX007-13

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	10326001	12/03/2010 12:11	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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

Sample Description: EB06-SA5C-110910 Water
SSFL Area IV Collocated Soil Sampling
EB06-SA5C-110910

LLI Sample # WW 6136208
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 12:00

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

DEB06 SDG#: DX007-14EB

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	0.368 JBQ	0.270	1.99	1
10915	12378-PeCDD	40321-76-4	0.290 U	0.290	9.95	1
10915	123478-HxCDD	39227-28-6	0.211 U	0.211	9.95	1
10915	123678-HxCDD	57653-85-7	0.221 U	0.221	9.95	1
10915	123789-HxCDD	19408-74-3	0.305 JBQ	0.211	9.95	1
10915	1234678-HpCDD	35822-46-9	0.776 JBQ	0.241	9.95	1
10915	OCDD	3268-87-9	2.51 JBQ	0.235	19.9	1
10915	2378-TCDF	51207-31-9	0.182 U	0.182	1.99	1
10915	12378-PeCDF	57117-41-6	0.281 JBQ	0.158	9.95	1
10915	23478-PeCDF	57117-31-4	0.187 JBQ	0.132	9.95	1
10915	123478-HxCDF	70648-26-9	0.282 JBQ	0.147	9.95	1
10915	123678-HxCDF	57117-44-9	0.243 JB	0.142	9.95	1
10915	123789-HxCDF	72918-21-9	0.416 JBQ	0.161	9.95	1
10915	234678-HxCDF	60851-34-5	0.140 U	0.140	9.95	1
10915	1234678-HpCDF	67562-39-4	0.534 JBQ	0.0960	9.95	1
10915	1234789-HpCDF	55673-89-7	0.545 JB	0.115	9.95	1
10915	OCDF	39001-02-0	0.903 JBQ	0.273	19.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	43	25 - 164
13C12-12378-PeCDD	64	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	62	28 - 130
13C12-123789-HxCDD	65	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	65	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	54	17 - 157
13C12-1278-TCDD (CRS)	51	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: EB06-SA5C-110910 Water
SSFL Area IV Collocated Soil Sampling
EB06-SA5C-110910

LLI Sample # WW 6136208
LLI Group # 1220508
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/09/2010 12:00

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

Submitted: 11/10/2010 09:00

Reported: 12/26/2010 12:09

DEB06 SDG#: DX007-14EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
F	Interference is present					
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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10317002	11/17/2010 14:52	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	10317002	11/13/2010 08:30	Deborah M Zimmerman	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/26/10 at 12:09 PM

Group Number: 1220508

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10322162401A 28a Total Solids by 160.3	Sample number(s): 6136203-6136207				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10317002	Sample number(s): 6136208								
2378-TCDD	0.301 J	0.169	2.00	pg/l	88		67-158		
12378-PeCDD	0.339 J	0.175	10.0	pg/l	89		70-142		
123478-HxCDD	0.151 U	0.151	10.0	pg/l	92		70-164		
123678-HxCDD	0.239 J	0.157	10.0	pg/l	90		76-134		
123789-HxCDD	0.353 J	0.149	10.0	pg/l	89		64-162		
1234678-HpCDD	1.41 J	0.186	10.0	pg/l	90		70-140		
OCDD	3.00 J	0.172	20.0	pg/l	91		78-144		
2378-TCDF	0.151 U	0.151	2.00	pg/l	91		75-158		
12378-PeCDF	0.286 J	0.108	10.0	pg/l	92		80-134		
23478-PeCDF	0.300 J	0.0936	10.0	pg/l	91		68-160		
123478-HxCDF	0.505 J	0.107	10.0	pg/l	91		72-134		
123678-HxCDF	0.251 J	0.105	10.0	pg/l	90		84-130		
123789-HxCDF	0.406 J	0.108	10.0	pg/l	91		78-130		
234678-HxCDF	0.183 J	0.0990	10.0	pg/l	90		70-156		
1234678-HpCDF	1.01 J	0.0736	10.0	pg/l	90		82-122		
1234789-HpCDF	0.556 J	0.0926	10.0	pg/l	94		78-138		
OCDF	1.41 J	0.226	20.0	pg/l	93		63-170		

Batch number: 10326001	Sample number(s): 6136203-6136207								
2378-TCDD	0.0311 U	0.0311	1.00	ng/kg	97		67-158		
12378-PeCDD	0.0303 J	0.0260	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0185 U	0.0185	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0426 J	0.0188	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0231 J	0.0182	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.265 J	0.0224	5.00	ng/kg	97		70-140		
OCDD	0.490 J	0.0244	10.0	ng/kg	96		78-144		
2378-TCDF	0.0578 J	0.0244	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0336 J	0.0168	5.00	ng/kg	96		80-134		
23478-PeCDF	0.157 J	0.0159	5.00	ng/kg	96		68-160		
123478-HxCDF	0.188 J	0.0284	5.00	ng/kg	97		72-134		
123678-HxCDF	0.140 J	0.0266	5.00	ng/kg	96		84-130		
123789-HxCDF	0.105 J	0.0332	5.00	ng/kg	96		78-130		
234678-HxCDF	0.249 J	0.0274	5.00	ng/kg	97		70-156		
1234678-HpCDF	0.976 J	0.0138	5.00	ng/kg	99		82-122		
1234789-HpCDF	0.133 J	0.0203	5.00	ng/kg	98		78-138		
OCDF	0.588 J	0.0363	10.0	ng/kg	97		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: 12/26/10 at 12:09 PM

Group Number: 1220508

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: 10322162401A 28a Total Solids by 160.3									
Sample number(s): 6136203-6136207						BKG: P137487 10.3	10.5	1	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: 10a Dioxin/Furan by EPA 1613B

Batch number: 10317002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6136208	43	72	66	65	67	65
Blank	60	74	66	64	67	70
OPR	63	74	66	65	67	69
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
6136208	63	60	54	51	64	66
Blank	63	59	51	66	73	68
OPR	66	57	48	70	74	68
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
6136208	62	65	64	57	64	68
Blank	62	66	62	54	64	69
OPR	65	67	65	58	69	71
Limits:	28-130	28-130	23-140	17-157	24-169	24-185

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

Batch number: 10326001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6136203	71	76	71	78	73	71
6136204	74	74	77	77	75	76
6136205	72	78	78	80	77	71
6136206	58	63	61	64	61	61
6136207	69	76	71	78	73	70
Blank	69	72	69	74	70	71
OPR	69	77	74	76	74	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: 12/26/10 at 12:09 PM

Group Number: 1220508

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD
6136203	84	68	62	81	80	78
6136204	78	71	65	82	81	79
6136205	83	61	46	86	84	82
6136206	66	53	47	84	65	64
6136207	86	65	59	85	80	78
Blank	81	67	62	80	75	75
OPR	78	70	64	83	77	75
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
6136203	78	78	78	74	70	78
6136204	78	77	78	71	74	78
6136205	80	80	80	69	75	81
6136206	65	63	63	57	60	63
6136207	79	77	78	71	70	80
Blank	74	74	76	71	68	74
OPR	77	76	75	71	71	75
Limits:	28-130	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 1220508 6136203-08

CHAIN OF CUSTODY RECORD

[illegible]

CHAIN OF CUSTODY RECORD

[illegible]

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.

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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

January 16, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/11/2010

Group Number: 1220754

SDG: DX007

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-110-SA5C-SB-4.0-5.0 Soil	6137494
SL-110-SA5C-SB-9.0-10.0 Soil	6137495
SL-111-SA5C-SB-4.0-5.0 Soil	6137496
SL-111-SA5C-SB-9.0-10.0 Soil	6137497
SL-103-SA5C-SB-4.0-5.0 Soil	6137498
SL-103-SA5C-SB-4.0-5.0MS Soil	6137499
SL-103-SA5C-SB-4.0-5.0MSD Soil	6137500
SL-103-SA5C-SB-9.0-10.0 Soil	6137501
DUP07-SA5C-QC-111010 Soil	6137502

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,



Charles J. Neslund
Manager



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-110-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-4.0-5.0

LLI Sample # SW 6137494
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:10

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1045 SDG#: DX007-15

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	28a 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-110-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-4.0-5.0

LLI Sample # SW 6137494
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:10

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1045 SDG#: DX007-15

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	0.0274 U	0.0274	1.12	1
11031	12378-PeCDD	40321-76-4	0.0254 U	0.0254	5.62	1
11031	123478-HxCDD	39227-28-6	0.0152 U	0.0152	5.62	1
11031	123678-HxCDD	57653-85-7	0.0155 U	0.0155	5.62	1
11031	123789-HxCDD	19408-74-3	0.0196 JBQ	0.0155	5.62	1
11031	1234678-HpCDD	35822-46-9	0.144 JB	0.0282	5.62	1
11031	OCDD	3268-87-9	0.716 JB	0.0265	11.2	1
11031	2378-TCDF	51207-31-9	0.0254 U	0.0254	1.12	1
11031	12378-PeCDF	57117-41-6	0.0377 JBQ	0.0163	5.62	1
11031	23478-PeCDF	57117-31-4	0.0860 JBQ	0.0157	5.62	1
11031	123478-HxCDF	70648-26-9	0.0664 JBQ	0.0200	5.62	1
11031	123678-HxCDF	57117-44-9	0.0759 JB	0.0188	5.62	1
11031	123789-HxCDF	72918-21-9	0.0574 JBQ	0.0232	5.62	1
11031	234678-HxCDF	60851-34-5	0.128 JBQ	0.0188	5.62	1
11031	1234678-HpCDF	67562-39-4	0.297 JBQ	0.0137	5.62	1
11031	1234789-HpCDF	55673-89-7	0.0449 JBQ	0.0207	5.62	1
11031	OCDF	39001-02-0	0.295 JBQ	0.0343	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	53	17 - 157
13C12-1278-TCDD (CRS)	84	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-110-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-4.0-5.0

LLI Sample # SW 6137494
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:10

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1045 SDG#: DX007-15

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-110-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-4.0-5.0

LLI Sample # SW 6137494
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:10

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1045 SDG#: DX007-15

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	10326001	12/03/2010 13:10	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-110-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-9.0-10.0

LLI Sample # SW 6137495
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:15

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1091 SDG#: DX007-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	12.8	0.50	0.50	1

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

Sample Description: SL-110-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-9.0-10.0

LLI Sample # SW 6137495
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:15

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1091 SDG#: DX007-16

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	0.0417 U	0.0417	1.15	1
11031	12378-PeCDD	40321-76-4	0.0670 JBQ	0.0376	5.73	1
11031	123478-HxCDD	39227-28-6	0.0442 JQ	0.0272	5.73	1
11031	123678-HxCDD	57653-85-7	0.0279 U	0.0279	5.73	1
11031	123789-HxCDD	19408-74-3	0.0268 U	0.0268	5.73	1
11031	1234678-HpCDD	35822-46-9	0.226 JB	0.0438	5.73	1
11031	OCDD	3268-87-9	1.12 JB	0.0308	11.5	1
11031	2378-TCDF	51207-31-9	0.0362 U	0.0362	1.15	1
11031	12378-PeCDF	57117-41-6	0.0624 JB	0.0208	5.73	1
11031	23478-PeCDF	57117-31-4	0.133 JB	0.0197	5.73	1
11031	123478-HxCDF	70648-26-9	0.0713 JBQ	0.0279	5.73	1
11031	123678-HxCDF	57117-44-9	0.0759 JBQ	0.0267	5.73	1
11031	123789-HxCDF	72918-21-9	0.0858 JBQ	0.0308	5.73	1
11031	234678-HxCDF	60851-34-5	0.116 JBQ	0.0278	5.73	1
11031	1234678-HpCDF	67562-39-4	0.431 JB	0.0219	5.73	1
11031	1234789-HpCDF	55673-89-7	0.0599 JBQ	0.0318	5.73	1
11031	OCDF	39001-02-0	0.288 JBQ	0.0489	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	52	17 - 157
13C12-1278-TCDD (CRS)	77	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

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Sample Description: SL-110-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-9.0-10.0

LLI Sample # SW 6137495
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:15

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1091 SDG#: DX007-16

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

Sample Description: SL-110-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-110-SA5C-SB-9.0-10.0

LLI Sample # SW 6137495
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 12:15

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1091 SDG#: DX007-16

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	10326001	12/03/2010 17:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-111-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-4.0-5.0

LLI Sample # SW 6137496
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:45

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1145 SDG#: DX007-17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	12.1	0.50	0.50	1

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

Sample Description: SL-111-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-4.0-5.0

LLI Sample # SW 6137496
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:45

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1145 SDG#: DX007-17

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	0.0354 U	0.0354	1.14	1
11031	12378-PeCDD	40321-76-4	0.0527 JBQ	0.0301	5.69	1
11031	123478-HxCDD	39227-28-6	0.0300 JQ	0.0196	5.69	1
11031	123678-HxCDD	57653-85-7	0.0287 JBQ	0.0197	5.69	1
11031	123789-HxCDD	19408-74-3	0.0203 U	0.0203	5.69	1
11031	1234678-HpCDD	35822-46-9	0.138 JBQ	0.0319	5.69	1
11031	OCDD	3268-87-9	0.213 JB	0.0323	11.4	1
11031	2378-TCDF	51207-31-9	0.0329 U	0.0329	1.14	1
11031	12378-PeCDF	57117-41-6	0.0419 JB	0.0190	5.69	1
11031	23478-PeCDF	57117-31-4	0.0784 JBQ	0.0175	5.69	1
11031	123478-HxCDF	70648-26-9	0.0779 JB	0.0197	5.69	1
11031	123678-HxCDF	57117-44-9	0.0443 JB	0.0197	5.69	1
11031	123789-HxCDF	72918-21-9	0.0406 JBQ	0.0235	5.69	1
11031	234678-HxCDF	60851-34-5	0.110 JBQ	0.0198	5.69	1
11031	1234678-HpCDF	67562-39-4	0.352 JB	0.0160	5.69	1
11031	1234789-HpCDF	55673-89-7	0.0208 U	0.0208	5.69	1
11031	OCDF	39001-02-0	0.216 JB	0.0422	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	84	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-111-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-4.0-5.0

LLI Sample # SW 6137496
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:45

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1145 SDG#: DX007-17

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-111-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-4.0-5.0

LLI Sample # SW 6137496
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:45

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1145 SDG#: DX007-17

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	10326001	12/03/2010 18:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Sample Description: SL-111-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-9.0-10.0

LLI Sample # SW 6137497
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:50

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1191 SDG#: DX007-18

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-111-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-9.0-10.0

LLI Sample # SW 6137497
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:50

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1191 SDG#: DX007-18

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	0.0315 U	0.0315	1.07	1
11031	12378-PeCDD	40321-76-4	0.0253 U	0.0253	5.34	1
11031	123478-HxCDD	39227-28-6	0.0378 JQ	0.0216	5.34	1
11031	123678-HxCDD	57653-85-7	0.0715 JBQ	0.0216	5.34	1
11031	123789-HxCDD	19408-74-3	0.0352 JBQ	0.0215	5.34	1
11031	1234678-HpCDD	35822-46-9	2.99 JB	0.0413	5.34	1
11031	OCDD	3268-87-9	34.1 B	0.0442	10.7	1
11031	2378-TCDF	51207-31-9	0.0283 U	0.0283	1.07	1
11031	12378-PeCDF	57117-41-6	0.0426 JBQ	0.0162	5.34	1
11031	23478-PeCDF	57117-31-4	0.0667 JBQ	0.0154	5.34	1
11031	123478-HxCDF	70648-26-9	0.0549 JB	0.0186	5.34	1
11031	123678-HxCDF	57117-44-9	0.0361 JB	0.0186	5.34	1
11031	123789-HxCDF	72918-21-9	0.0451 JBQ	0.0208	5.34	1
11031	234678-HxCDF	60851-34-5	0.0511 JB	0.0184	5.34	1
11031	1234678-HpCDF	67562-39-4	0.395 JB	0.0162	5.34	1
11031	1234789-HpCDF	55673-89-7	0.0414 JBQ	0.0202	5.34	1
11031	OCDF	39001-02-0	0.707 JB	0.0350	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	78	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	79	26 - 152
13C12-123678-HxCDF	78	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	80	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	78	26 - 138
13C12-OCDF	74	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



Analysis Report

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Sample Description: SL-111-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-9.0-10.0

LLI Sample # SW 6137497
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:50

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1191 SDG#: DX007-18

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

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Page 4 of 4

Sample Description: SL-111-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-111-SA5C-SB-9.0-10.0

LLI Sample # SW 6137497
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 14:50

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D1191 SDG#: DX007-18

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	10326001	12/03/2010 19:20	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Sample Description: SL-103-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137498
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-103-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137498
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19BKG

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	0.0260 U	0.0260	1.11	1
11031	12378-PeCDD	40321-76-4	0.0351 U	0.0351	5.57	1
11031	123478-HxCDD	39227-28-6	0.0171 J	0.0142	5.57	1
11031	123678-HxCDD	57653-85-7	0.0324 JB	0.0145	5.57	1
11031	123789-HxCDD	19408-74-3	0.0357 JBQ	0.0146	5.57	1
11031	1234678-HpCDD	35822-46-9	0.441 JB	0.0310	5.57	1
11031	OCDD	3268-87-9	3.43 JB	0.0237	11.1	1
11031	2378-TCDF	51207-31-9	0.0214 U	0.0214	1.11	1
11031	12378-PeCDF	57117-41-6	0.0118 U	0.0118	5.57	1
11031	23478-PeCDF	57117-31-4	0.0335 JBQ	0.0143	5.57	1
11031	123478-HxCDF	70648-26-9	0.0419 JBQ	0.0132	5.57	1
11031	123678-HxCDF	57117-44-9	0.0178 JBQ	0.0126	5.57	1
11031	123789-HxCDF	72918-21-9	0.0149 U	0.0149	5.57	1
11031	234678-HxCDF	60851-34-5	0.0544 JBQ	0.0133	5.57	1
11031	1234678-HpCDF	67562-39-4	0.245 JB	0.0108	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0249 JBQ	0.0151	5.57	1
11031	OCDF	39001-02-0	0.251 JB	0.0298	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	84	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	75	17 - 157
13C12-2378-TCDF	75	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	67	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-103-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137498
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19BKG

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-103-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137498
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/11/2010 09:00

Suite 210

Reported: 01/16/2011 14:41

Chantilly VA 20151

D0345 SDG#: DX007-19BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10326001	12/03/2010 20:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Sample Description: SL-103-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137499
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-103-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137499
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MS

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	21.6	0.0540	1.11	1
11031	12378-PeCDD	40321-76-4	106 B	0.0641	5.57	1
11031	123478-HxCDD	39227-28-6	109	0.0574	5.57	1
11031	123678-HxCDD	57653-85-7	107 B	0.0589	5.57	1
11031	123789-HxCDD	19408-74-3	107 B	0.0589	5.57	1
11031	1234678-HpCDD	35822-46-9	109 B	0.0896	5.57	1
11031	OCDD	3268-87-9	220 B	0.0851	11.1	1
11031	2378-TCDF	51207-31-9	22.5 B	0.0596	1.11	1
11031	12378-PeCDF	57117-41-6	105 B	0.0438	5.57	1
11031	23478-PeCDF	57117-31-4	106 B	0.0399	5.57	1
11031	123478-HxCDF	70648-26-9	108 B	0.0790	5.57	1
11031	123678-HxCDF	57117-44-9	107 B	0.0754	5.57	1
11031	123789-HxCDF	72918-21-9	108 B	0.0855	5.57	1
11031	234678-HxCDF	60851-34-5	108 B	0.0735	5.57	1
11031	1234678-HpCDF	67562-39-4	107 B	0.0648	5.57	1
11031	1234789-HpCDF	55673-89-7	109 B	0.0920	5.57	1
11031	OCDF	39001-02-0	217 B	0.0889	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	73	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	68	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	84	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-103-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137499
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

CDM Federal Programs Corp.
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Suite 210
Chantilly VA 20151

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MS

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-103-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137499
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/11/2010 09:00

Suite 210

Reported: 01/16/2011 14:41

Chantilly VA 20151

D0345 SDG#: DX007-19MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10326001	12/03/2010 21:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-103-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137500
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-103-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137500
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MSD

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	22.3	0.0522	1.11	1
11031	12378-PeCDD	40321-76-4	109 B	0.0431	5.57	1
11031	123478-HxCDD	39227-28-6	108	0.0692	5.57	1
11031	123678-HxCDD	57653-85-7	107 B	0.0703	5.57	1
11031	123789-HxCDD	19408-74-3	108 B	0.0693	5.57	1
11031	1234678-HpCDD	35822-46-9	106 B	0.0645	5.57	1
11031	OCDD	3268-87-9	218 B	0.0713	11.1	1
11031	2378-TCDF	51207-31-9	22.7	0.0506	1.11	1
11031	12378-PeCDF	57117-41-6	108 B	0.0443	5.57	1
11031	23478-PeCDF	57117-31-4	106 B	0.0412	5.57	1
11031	123478-HxCDF	70648-26-9	110 B	0.0878	5.57	1
11031	123678-HxCDF	57117-44-9	107 B	0.0833	5.57	1
11031	123789-HxCDF	72918-21-9	108 B	0.113	5.57	1
11031	234678-HxCDF	60851-34-5	108 B	0.0855	5.57	1
11031	1234678-HpCDF	67562-39-4	109 B	0.0596	5.57	1
11031	1234789-HpCDF	55673-89-7	107 B	0.105	5.57	1
11031	OCDF	39001-02-0	216 B	0.0919	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	78	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	81	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	80	26 - 123
13C12-234678-HxCDF	78	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	43	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-103-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137500
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MSD

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

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Page 4 of 4

Sample Description: SL-103-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-4.0-5.0

LLI Sample # SW 6137500
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:25

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0345 SDG#: DX007-19MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10326001	12/03/2010 22:18	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-103-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-9.0-10.0

LLI Sample # SW 6137501
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:40

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0391 SDG#: DX007-20

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-103-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-9.0-10.0

LLI Sample # SW 6137501
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:40

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0391 SDG#: DX007-20

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	0.0352 U	0.0352	1.12	1
11031	12378-PeCDD	40321-76-4	0.0294 JBQ	0.0261	5.61	1
11031	123478-HxCDD	39227-28-6	0.0313 JQ	0.0198	5.61	1
11031	123678-HxCDD	57653-85-7	0.0473 JBQ	0.0206	5.61	1
11031	123789-HxCDD	19408-74-3	0.0704 JBQ	0.0210	5.61	1
11031	1234678-HpCDD	35822-46-9	0.156 JB	0.0299	5.61	1
11031	OCDD	3268-87-9	0.593 JB	0.0377	11.2	1
11031	2378-TCDF	51207-31-9	0.0268 U	0.0268	1.12	1
11031	12378-PeCDF	57117-41-6	0.0559 JBQ	0.0169	5.61	1
11031	23478-PeCDF	57117-31-4	0.0909 JBQ	0.0156	5.61	1
11031	123478-HxCDF	70648-26-9	0.0614 JBQ	0.0198	5.61	1
11031	123678-HxCDF	57117-44-9	0.0526 JBQ	0.0192	5.61	1
11031	123789-HxCDF	72918-21-9	0.0409 JBQ	0.0237	5.61	1
11031	234678-HxCDF	60851-34-5	0.118 JB	0.0196	5.61	1
11031	1234678-HpCDF	67562-39-4	0.249 JB	0.0119	5.61	1
11031	1234789-HpCDF	55673-89-7	0.0371 JB	0.0167	5.61	1
11031	OCDF	39001-02-0	0.229 JB	0.0344	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	60	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

Sample Description: SL-103-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-9.0-10.0

LLI Sample # SW 6137501
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:40

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0391 SDG#: DX007-20

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

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Page 4 of 4

Sample Description: SL-103-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-103-SA5C-SB-9.0-10.0

LLI Sample # SW 6137501
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:40

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

D0391 SDG#: DX007-20

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	10326001	12/03/2010 23:18	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: DUP07-SA5C-QC-111010 Soil
SSFL Area IV Collocated Soil Sampling
DUP07-SA5C-QC-111010

LLI Sample # SW 6137502
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:35

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

DDP07 SDG#: DX007-21FD*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	11.6	0.50	0.50	1

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

Sample Description: DUP07-SA5C-QC-111010 Soil
SSFL Area IV Collocated Soil Sampling
DUP07-SA5C-QC-111010

LLI Sample # SW 6137502
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:35

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

DDP07 SDG#: DX007-21FD*

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	0.0560 U	0.0560	1.13	1
11031	12378-PeCDD	40321-76-4	0.0433 U	0.0433	5.66	1
11031	123478-HxCDD	39227-28-6	0.0236 U	0.0236	5.66	1
11031	123678-HxCDD	57653-85-7	0.0240 U	0.0240	5.66	1
11031	123789-HxCDD	19408-74-3	0.0283 JBQ	0.0238	5.66	1
11031	1234678-HpCDD	35822-46-9	0.126 JBQ	0.0385	5.66	1
11031	OCDD	3268-87-9	0.969 JB	0.0551	11.3	1
11031	2378-TCDF	51207-31-9	0.0455 JBQ	0.0420	1.13	1
11031	12378-PeCDF	57117-41-6	0.0219 U	0.0219	5.66	1
11031	23478-PeCDF	57117-31-4	0.0654 JBQ	0.0200	5.66	1
11031	123478-HxCDF	70648-26-9	0.0574 JBQ	0.0213	5.66	1
11031	123678-HxCDF	57117-44-9	0.0918 JB	0.0198	5.66	1
11031	123789-HxCDF	72918-21-9	0.0560 JBQ	0.0268	5.66	1
11031	234678-HxCDF	60851-34-5	0.0928 JBQ	0.0217	5.66	1
11031	1234678-HpCDF	67562-39-4	0.224 JB	0.0133	5.66	1
11031	1234789-HpCDF	55673-89-7	0.0281 JBQ	0.0212	5.66	1
11031	OCDF	39001-02-0	0.215 JBQ	0.0559	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	58	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	79	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	59	17 - 157
13C12-1278-TCDD (CRS)	74	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: DUP07-SA5C-QC-111010 Soil
SSFL Area IV Collocated Soil Sampling
DUP07-SA5C-QC-111010

LLI Sample # SW 6137502
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:35

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

DDP07 SDG#: DX007-21FD*

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

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Sample Description: DUP07-SA5C-QC-111010 Soil
SSFL Area IV Collocated Soil Sampling
DUP07-SA5C-QC-111010

LLI Sample # SW 6137502
LLI Group # 1220754
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/10/2010 10:35

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

Submitted: 11/11/2010 09:00

Reported: 01/16/2011 14:41

DDP07 SDG#: DX007-21FD*

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10326001	12/04/2010 00:17	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10326001	11/22/2010 13:45	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10322162401A	11/18/2010 08:33	William C Schwebel	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/16/11 at 02:41 PM

Group Number: 1220754

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: 10322162401A 28a Moisture Content by 160.3	Sample number(s): 6137494-6137502				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: 10326001	Sample number(s): 6137494-6137502								
2378-TCDD	0.0311 U	0.0311	1.00	ng/kg	97		67-158		
12378-PeCDD	0.0303 J	0.0260	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0185 U	0.0185	5.00	ng/kg	98		70-164		
123678-HxCDD	0.0426 J	0.0188	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0231 J	0.0182	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.265 J	0.0224	5.00	ng/kg	97		70-140		
OCDD	0.490 J	0.0244	10.0	ng/kg	96		78-144		
2378-TCDF	0.0578 J	0.0244	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0336 J	0.0168	5.00	ng/kg	96		80-134		
23478-PeCDF	0.157 J	0.0159	5.00	ng/kg	96		68-160		
123478-HxCDF	0.188 J	0.0284	5.00	ng/kg	97		72-134		
123678-HxCDF	0.140 J	0.0266	5.00	ng/kg	96		84-130		
123789-HxCDF	0.105 J	0.0332	5.00	ng/kg	96		78-130		
234678-HxCDF	0.249 J	0.0274	5.00	ng/kg	97		70-156		
1234678-HpCDF	0.976 J	0.0138	5.00	ng/kg	99		82-122		
1234789-HpCDF	0.133 J	0.0203	5.00	ng/kg	98		78-138		
OCDF	0.588 J	0.0363	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: 10322162401A 28a Moisture Content by 160.3	Sample number(s): 6137494-6137502					BKG: P137487 10.3	10.5	1	20
Batch number: 10326001	Sample number(s): 6137494-6137502					UNSPK: 6137498			
2378-TCDD	97	100	67-158	3	25				
12378-PeCDD	95	97	70-142	2	25				
123478-HxCDD	98	97	70-164	1	25				
123678-HxCDD	96	96	76-134	1	25				
123789-HxCDD	96	97	64-162	1	25				
1234678-HpCDD	97	95	70-140	2	25				
OCDD	97	96	78-144	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: 01/16/11 at 02:41 PM

Group Number: 1220754

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
2378-TCDF	101	102	75-158	1	25				
12378-PeCDF	94	97	80-134	2	25				
23478-PeCDF	95	95	68-160	0	25				
123478-HxCDF	97	98	72-134	2	25				
123678-HxCDF	96	96	84-130	1	25				
123789-HxCDF	97	97	78-130	0	25				
234678-HxCDF	97	97	70-156	0	25				
1234678-HpCDF	96	97	82-122	1	25				
1234789-HpCDF	98	96	78-138	2	25				
OCDF	97	97	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: 10326001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6137494	67	70	64	69	67	66
6137495	65	69	66	67	67	68
6137496	67	73	70	71	69	70
6137497	78	84	79	78	78	80
6137498	75	77	76	79	74	75
6137499	71	75	72	74	73	73
6137500	78	84	77	80	78	70
6137501	65	73	70	74	71	71
6137502	58	69	68	72	68	64
Blank	69	72	69	74	70	71
MS	71	75	72	74	73	73
MSD	78	84	77	80	78	70
OPR	69	77	74	76	74	73
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
6137494	76	60	53	84	72	70
6137495	69	61	52	77	71	69
6137496	72	66	62	84	73	72
6137497	81	78	74	85	83	79
6137498	85	72	67	85	84	79
6137499	79	68	62	84	76	74
6137500	82	58	43	88	85	82
6137501	74	66	60	79	75	77
6137502	79	63	59	74	71	72
Blank	81	67	62	80	75	75
MS	79	68	62	84	76	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 / MRL.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/16/11 at 02:41 PM

Group Number: 1220754

Surrogate Quality Control

MSD	82	58	43	88	85	82
OPR	78	70	64	83	77	75
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
6137494	69	70	70	66	65	69
6137495	70	70	68	62	63	69
6137496	70	71	71	67	67	70
6137497	82	80	80	78	78	81
6137498	81	79	80	75	75	82
6137499	77	75	74	69	71	76
6137500	81	80	78	68	78	84
6137501	76	74	72	66	66	73
6137502	75	71	73	69	60	71
Blank	74	74	76	71	68	74
MS	77	75	74	69	71	76
MSD	81	80	78	68	78	84
OPR	77	76	75	71	71	75
Limits:	28-130	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.

6137494-502

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																	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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 9081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C		**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-110-SA5C-SB-4.5	11.10.10	1205	soil	none	4 - Encore samplers	X	X																			
SL-110-SA5C-SB-4.0-5.0	11.10.10	1210	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-110-SA5C-SB-9.0-10.0	11.10.10	1215	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-111-SA5C-SB-4.5	11.10.10	1440	soil	none	4 - Encore samplers	X	X																			
SL-111-SA5C-SB-4.0-5.0	11.10.10	1445	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X											
SL-111-SA5C-SB-9.0-10.0	11.10.10	1450	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-103-SA5C-SB-4.5 MS	11.10.10	1020	soil	none	16 - Encore samplers	X	X																			
SL-103-SA5C-SB-4.0-5.0 MS	11.10.10	1025	soil	none	6 - 16 oz jars			X	X	X	X	X	X	X												
SL-103-SA5C-SB-9.0-10.0	11.10.10	1040	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
DUP07-SA5C-QC-111010	11.10.10	1030	soil	none	4 - Encore samplers	X	X																			
DUP07-SA5C-QC-111010	11.10.10	1035	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
TB-111010	11.10.10	1600	water	HCl	3 - 40 ml VOA vials	X	X																			
Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 11.10.10 1630	Relinquished by: (Signature) <i>[Signature]</i>		Date/Time	Relinquished by: (Signature) <i>[Signature]</i>		Date/Time		Received for Laboratory by: (Signature) <i>[Signature]</i>		Date/Time 11/10/10 700		Laboratory: Lancaster Laboratories, Inc.													
Received by: (Signature) <i>FedEx Carrier</i>	Date/Time	Received by: (Signature)		Date/Time	Received by: (Signature)		Date/Time		Airbill No.																	

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.

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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 23, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/12/2010

Group Number: 1220969

SDG: DX008

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-104-SA5C-SB-4.0-5.0 Soil	6138706
SL-104-SA5C-SB-9.0-10.0 Soil	6138707
SL-100-SA5C-SB-4.0-5.0 Soil	6138708
SL-100-SA5C-SB-8.5-9.5 Soil	6138709
SL-101-SA5C-SB-4.0-5.0 Soil	6138710
SL-086-SA5C-SB-4.0-5.0 Soil	6138711
EB07-SA5C-111110 Water	6138712

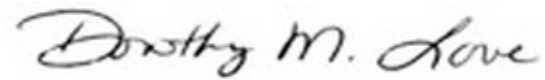
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



Analysis Report

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Sample Description: SL-104-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-4.0-5.0

LLI Sample # SW 6138706
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:25

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0445 SDG#: DX008-01

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	28a Total Solids 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-104-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-4.0-5.0

LLI Sample # SW 6138706
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:25

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0445 SDG#: DX008-01

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	0.0181 U	0.0181	1.12	1
11031	12378-PeCDD	40321-76-4	0.0736 JQ	0.0247	5.62	1
11031	123478-HxCDD	39227-28-6	0.0611 JBQ	0.0268	5.62	1
11031	123678-HxCDD	57653-85-7	0.0675 JBQ	0.0281	5.62	1
11031	123789-HxCDD	19408-74-3	0.0460 JBQ	0.0270	5.62	1
11031	1234678-HpCDD	35822-46-9	0.548 JB	0.0412	5.62	1
11031	OCDD	3268-87-9	1.23 JB	0.0438	11.2	1
11031	2378-TCDF	51207-31-9	0.0200 U	0.0200	1.12	1
11031	12378-PeCDF	57117-41-6	0.0607 JBQ	0.0146	5.62	1
11031	23478-PeCDF	57117-31-4	0.203 JB	0.0136	5.62	1
11031	123478-HxCDF	70648-26-9	0.342 JB	0.0232	5.62	1
11031	123678-HxCDF	57117-44-9	0.255 JB	0.0223	5.62	1
11031	123789-HxCDF	72918-21-9	0.178 JBQ	0.0255	5.62	1
11031	234678-HxCDF	60851-34-5	0.457 JB	0.0223	5.62	1
11031	1234678-HpCDF	67562-39-4	2.17 JB	0.0294	5.62	1
11031	1234789-HpCDF	55673-89-7	0.215 JBQ	0.0385	5.62	1
11031	OCDF	39001-02-0	1.01 JBQ	0.0433	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	63	23 - 140
13C12-OCDD	51	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	79	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	64	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	44	17 - 157
13C12-1278-TCDD (CRS)	82	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-104-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-4.0-5.0

LLI Sample # SW 6138706
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:25

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0445 SDG#: DX008-01

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-104-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-4.0-5.0

LLI Sample # SW 6138706
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2010 09:10

Suite 210

Reported: 12/23/2010 13:40

Chantilly VA 20151

D0445 SDG#: DX008-01

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	10323001	12/03/2010 22:24	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Sample Description: SL-104-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-9.0-10.0

LLI Sample # SW 6138707
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0491 SDG#: DX008-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids 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-104-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-9.0-10.0

LLI Sample # SW 6138707
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0491 SDG#: DX008-02

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	0.0159 JBQ	0.0127	1.14	1
11031	12378-PeCDD	40321-76-4	0.0407 JQ	0.0141	5.68	1
11031	123478-HxCDD	39227-28-6	0.0442 JBQ	0.0206	5.68	1
11031	123678-HxCDD	57653-85-7	0.0579 JB	0.0206	5.68	1
11031	123789-HxCDD	19408-74-3	0.0629 JB	0.0219	5.68	1
11031	1234678-HpCDD	35822-46-9	0.559 JB	0.0219	5.68	1
11031	OCDD	3268-87-9	1.54 JB	0.0322	11.4	1
11031	2378-TCDF	51207-31-9	0.0186 U	0.0186	1.14	1
11031	12378-PeCDF	57117-41-6	0.0534 JBQ	0.0116	5.68	1
11031	23478-PeCDF	57117-31-4	0.201 JB	0.0101	5.68	1
11031	123478-HxCDF	70648-26-9	0.263 JB	0.0177	5.68	1
11031	123678-HxCDF	57117-44-9	0.227 JB	0.0169	5.68	1
11031	123789-HxCDF	72918-21-9	0.119 JBQ	0.0194	5.68	1
11031	234678-HxCDF	60851-34-5	0.418 JB	0.0174	5.68	1
11031	1234678-HpCDF	67562-39-4	1.98 JB	0.0164	5.68	1
11031	1234789-HpCDF	55673-89-7	0.191 JB	0.0215	5.68	1
11031	OCDF	39001-02-0	0.932 JB	0.0236	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	82	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	64	28 - 130
13C12-1234678-HpCDD	62	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	61	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	62	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	44	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-104-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-9.0-10.0

LLI Sample # SW 6138707
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0491 SDG#: DX008-02

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

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Sample Description: SL-104-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-104-SA5C-SB-9.0-10.0

LLI Sample # SW 6138707
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 09:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0491 SDG#: DX008-02

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	10323001	12/03/2010 23:23	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-100-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-4.0-5.0

LLI Sample # SW 6138708
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:05

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0045 SDG#: DX008-03

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	28a Total Solids 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-100-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-4.0-5.0

LLI Sample # SW 6138708
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:05

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0045 SDG#: DX008-03

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	0.00862 U	0.00862	1.08	1
11031	12378-PeCDD	40321-76-4	0.0132 J	0.0117	5.39	1
11031	123478-HxCDD	39227-28-6	0.0306 JBQ	0.0137	5.39	1
11031	123678-HxCDD	57653-85-7	0.0643 JBQ	0.0135	5.39	1
11031	123789-HxCDD	19408-74-3	0.0579 JB	0.0142	5.39	1
11031	1234678-HpCDD	35822-46-9	0.643 JB	0.0143	5.39	1
11031	OCDD	3268-87-9	2.27 JB	0.0176	10.8	1
11031	2378-TCDF	51207-31-9	0.0310 JBQ	0.0128	1.08	1
11031	12378-PeCDF	57117-41-6	0.0525 JBQ	0.00981	5.39	1
11031	23478-PeCDF	57117-31-4	0.177 JB	0.00873	5.39	1
11031	123478-HxCDF	70648-26-9	0.281 JB	0.0141	5.39	1
11031	123678-HxCDF	57117-44-9	0.200 JB	0.0130	5.39	1
11031	123789-HxCDF	72918-21-9	0.119 JBQ	0.0153	5.39	1
11031	234678-HxCDF	60851-34-5	0.435 JB	0.0136	5.39	1
11031	1234678-HpCDF	67562-39-4	1.94 JB	0.00927	5.39	1
11031	1234789-HpCDF	55673-89-7	0.178 JB	0.0130	5.39	1
11031	OCDF	39001-02-0	0.955 JB	0.0182	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	81	25 - 164
13C12-12378-PeCDD	93	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	81	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-100-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-4.0-5.0

LLI Sample # SW 6138708
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:05

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0045 SDG#: DX008-03

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-100-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-4.0-5.0

LLI Sample # SW 6138708
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:05

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2010 09:10

Suite 210

Reported: 12/23/2010 13:40

Chantilly VA 20151

D0045 SDG#: DX008-03

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	10323001	12/04/2010 00:23	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Sample Description: SL-100-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-8.5-9.5

LLI Sample # SW 6138709
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:10

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0089 SDG#: DX008-04

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	28a Total Solids 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-100-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-8.5-9.5

LLI Sample # SW 6138709
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:10

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0089 SDG#: DX008-04

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	0.0123 U	0.0123	1.12	1
11031	12378-PeCDD	40321-76-4	0.0384 JQ	0.0117	5.59	1
11031	123478-HxCDD	39227-28-6	0.0589 JB	0.0166	5.59	1
11031	123678-HxCDD	57653-85-7	0.0995 JB	0.0170	5.59	1
11031	123789-HxCDD	19408-74-3	0.0932 JB	0.0176	5.59	1
11031	1234678-HpCDD	35822-46-9	2.08 JB	0.0158	5.59	1
11031	OCDD	3268-87-9	14.1 B	0.0251	11.2	1
11031	2378-TCDF	51207-31-9	0.0201 JBQ	0.0153	1.12	1
11031	12378-PeCDF	57117-41-6	0.0506 JBQ	0.00973	5.59	1
11031	23478-PeCDF	57117-31-4	0.161 JB	0.00884	5.59	1
11031	123478-HxCDF	70648-26-9	0.263 JB	0.0188	5.59	1
11031	123678-HxCDF	57117-44-9	0.181 JB	0.0174	5.59	1
11031	123789-HxCDF	72918-21-9	0.122 JBQ	0.0216	5.59	1
11031	234678-HxCDF	60851-34-5	0.368 JB	0.0185	5.59	1
11031	1234678-HpCDF	67562-39-4	1.80 JB	0.0110	5.59	1
11031	1234789-HpCDF	55673-89-7	0.151 JB	0.0162	5.59	1
11031	OCDF	39001-02-0	1.59 JB	0.0169	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	87	24 - 185
13C12-23478-PeCDF	85	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	53	17 - 157
13C12-1278-TCDD (CRS)	71	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-100-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-8.5-9.5

LLI Sample # SW 6138709
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:10

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0089 SDG#: DX008-04

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-100-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-100-SA5C-SB-8.5-9.5

LLI Sample # SW 6138709
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 13:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2010 09:10

Suite 210

Reported: 12/23/2010 13:40

Chantilly VA 20151

D0089 SDG#: DX008-04

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	10323001	12/04/2010 01:23	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-101-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SB-4.0-5.0

LLI Sample # SW 6138710
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 10:45

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0145 SDG#: DX008-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids 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-101-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SB-4.0-5.0

LLI Sample # SW 6138710
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 10:45

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0145 SDG#: DX008-05

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	0.00954 U	0.00954	1.07	1
11031	12378-PeCDD	40321-76-4	0.0242 J	0.0137	5.36	1
11031	123478-HxCDD	39227-28-6	0.0215 JBQ	0.00997	5.36	1
11031	123678-HxCDD	57653-85-7	0.0376 JBQ	0.0104	5.36	1
11031	123789-HxCDD	19408-74-3	0.0358 JBQ	0.0104	5.36	1
11031	1234678-HpCDD	35822-46-9	0.369 JB	0.0152	5.36	1
11031	OCDD	3268-87-9	1.56 JB	0.0143	10.7	1
11031	2378-TCDF	51207-31-9	0.0131 U	0.0131	1.07	1
11031	12378-PeCDF	57117-41-6	0.0323 JBQ	0.00793	5.36	1
11031	23478-PeCDF	57117-31-4	0.123 JB	0.00750	5.36	1
11031	123478-HxCDF	70648-26-9	0.163 JBQ	0.0140	5.36	1
11031	123678-HxCDF	57117-44-9	0.113 JB	0.0125	5.36	1
11031	123789-HxCDF	72918-21-9	0.0717 JB	0.0155	5.36	1
11031	234678-HxCDF	60851-34-5	0.234 JB	0.0128	5.36	1
11031	1234678-HpCDF	67562-39-4	1.02 JB	0.00782	5.36	1
11031	1234789-HpCDF	55673-89-7	0.0719 JBQ	0.0119	5.36	1
11031	OCDF	39001-02-0	0.511 JB	0.0156	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	89	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	59	26 - 138
13C12-OCDF	49	17 - 157
13C12-1278-TCDD (CRS)	78	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-101-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SB-4.0-5.0

LLI Sample # SW 6138710
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 10:45

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D0145 SDG#: DX008-05

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-101-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-101-SA5C-SB-4.0-5.0

LLI Sample # SW 6138710
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 10:45

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2010 09:10

Suite 210

Reported: 12/23/2010 13:40

Chantilly VA 20151

D0145 SDG#: DX008-05

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	10323001	12/04/2010 02:22	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-086-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SB-4.0-5.0

LLI Sample # SW 6138711
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 15:20

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D8645 SDG#: DX008-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	8.7	0.50	0.50	1

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

Sample Description: SL-086-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SB-4.0-5.0

LLI Sample # SW 6138711
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 15:20

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D8645 SDG#: DX008-06

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	0.0162 JBQ	0.0105	1.10	1
11031	12378-PeCDD	40321-76-4	0.0116 U	0.0116	5.48	1
11031	123478-HxCDD	39227-28-6	0.0565 JBQ	0.0160	5.48	1
11031	123678-HxCDD	57653-85-7	0.140 JB	0.0161	5.48	1
11031	123789-HxCDD	19408-74-3	0.202 JB	0.0171	5.48	1
11031	1234678-HpCDD	35822-46-9	0.521 JB	0.0185	5.48	1
11031	OCDD	3268-87-9	1.05 JB	0.0198	11.0	1
11031	2378-TCDF	51207-31-9	0.0272 JBQ	0.0158	1.10	1
11031	12378-PeCDF	57117-41-6	0.0649 JB	0.0104	5.48	1
11031	23478-PeCDF	57117-31-4	0.228 JB	0.00964	5.48	1
11031	123478-HxCDF	70648-26-9	0.353 JB	0.0176	5.48	1
11031	123678-HxCDF	57117-44-9	0.220 JB	0.0160	5.48	1
11031	123789-HxCDF	72918-21-9	0.191 JB	0.0225	5.48	1
11031	234678-HxCDF	60851-34-5	0.452 JB	0.0174	5.48	1
11031	1234678-HpCDF	67562-39-4	1.96 JB	0.0117	5.48	1
11031	1234789-HpCDF	55673-89-7	0.236 JBQ	0.0193	5.48	1
11031	OCDF	39001-02-0	1.10 JB	0.0182	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	84	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	61	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	45	17 - 157
13C12-1278-TCDD (CRS)	70	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-086-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SB-4.0-5.0

LLI Sample # SW 6138711
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 15:20

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

D8645 SDG#: DX008-06

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-086-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-086-SA5C-SB-4.0-5.0

LLI Sample # SW 6138711
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 15:20

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/12/2010 09:10

Suite 210

Reported: 12/23/2010 13:40

Chantilly VA 20151

D8645 SDG#: DX008-06

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	10323001	12/04/2010 06:34	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10322162401B	11/18/2010 08:33	William C Schwebel	1

Sample Description: EB07-SA5C-111110 Water
SSFL Area IV Collocated Soil Sampling
EB07-SA5C-111110

LLI Sample # WW 6138712
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 11:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

DEB07 SDG#: DX008-07EB

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	0.159 U	0.159	1.97	1
10915	12378-PeCDD	40321-76-4	0.178 U	0.178	9.84	1
10915	123478-HxCDD	39227-28-6	0.123 U	0.123	9.84	1
10915	123678-HxCDD	57653-85-7	0.129 U	0.129	9.84	1
10915	123789-HxCDD	19408-74-3	0.163 JBQ	0.119	9.84	1
10915	1234678-HpCDD	35822-46-9	0.836 JBQ	0.164	9.84	1
10915	OCDD	3268-87-9	2.41 JBQ	0.165	19.7	1
10915	2378-TCDF	51207-31-9	0.112 U	0.112	1.97	1
10915	12378-PeCDF	57117-41-6	0.0949 U	0.0949	9.84	1
10915	23478-PeCDF	57117-31-4	0.378 JBQ	0.0821	9.84	1
10915	123478-HxCDF	70648-26-9	0.246 JBQ	0.0702	9.84	1
10915	123678-HxCDF	57117-44-9	0.195 JBQ	0.0677	9.84	1
10915	123789-HxCDF	72918-21-9	0.0762 U	0.0762	9.84	1
10915	234678-HxCDF	60851-34-5	0.0653 U	0.0653	9.84	1
10915	1234678-HpCDF	67562-39-4	0.422 JBQ	0.0567	9.84	1
10915	1234789-HpCDF	55673-89-7	0.310 JBQ	0.0689	9.84	1
10915	OCDF	39001-02-0	0.447 JBQ	0.169	19.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	40	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	63	28 - 130
13C12-123789-HxCDD	64	28 - 130
13C12-1234678-HpCDD	63	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	51	17 - 157
13C12-1278-TCDD (CRS)	54	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: EB07-SA5C-111110 Water
SSFL Area IV Collocated Soil Sampling
EB07-SA5C-111110

LLI Sample # WW 6138712
LLI Group # 1220969
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/11/2010 11:30

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

Submitted: 11/12/2010 09:10

Reported: 12/23/2010 13:40

DEB07 SDG#: DX008-07EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
F	Interference is present					
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	10a Dioxin/Furan by EPA 1613B	EPA 1613B	1	10317002	11/17/2010 15:52	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	10317002	11/13/2010 08:30	Deborah M Zimmerman	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/23/10 at 01:40 PM

Group Number: 1220969

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10322162401B 28a Total Solids by 160.3	Sample number(s): 6138706-6138711				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10317002	Sample number(s): 6138712								
2378-TCDD	0.301 J	0.169	2.00	pg/l	88		67-158		
12378-PeCDD	0.339 J	0.175	10.0	pg/l	89		70-142		
123478-HxCDD	0.151 U	0.151	10.0	pg/l	92		70-164		
123678-HxCDD	0.239 J	0.157	10.0	pg/l	90		76-134		
123789-HxCDD	0.353 J	0.149	10.0	pg/l	89		64-162		
1234678-HpCDD	1.41 J	0.186	10.0	pg/l	90		70-140		
OCDD	3.00 J	0.172	20.0	pg/l	91		78-144		
2378-TCDF	0.151 U	0.151	2.00	pg/l	91		75-158		
12378-PeCDF	0.286 J	0.108	10.0	pg/l	92		80-134		
23478-PeCDF	0.300 J	0.0936	10.0	pg/l	91		68-160		
123478-HxCDF	0.505 J	0.107	10.0	pg/l	91		72-134		
123678-HxCDF	0.251 J	0.105	10.0	pg/l	90		84-130		
123789-HxCDF	0.406 J	0.108	10.0	pg/l	91		78-130		
234678-HxCDF	0.183 J	0.0990	10.0	pg/l	90		70-156		
1234678-HpCDF	1.01 J	0.0736	10.0	pg/l	90		82-122		
1234789-HpCDF	0.556 J	0.0926	10.0	pg/l	94		78-138		
OCDF	1.41 J	0.226	20.0	pg/l	93		63-170		

Batch number: 10323001	Sample number(s): 6138706-6138711								
2378-TCDD	0.0306 J	0.0118	1.00	ng/kg	85		67-158		
12378-PeCDD	0.0123 U	0.0123	5.00	ng/kg	87		70-142		
123478-HxCDD	0.0399 J	0.0140	5.00	ng/kg	89		70-164		
123678-HxCDD	0.0582 J	0.0146	5.00	ng/kg	86		76-134		
123789-HxCDD	0.0559 J	0.0149	5.00	ng/kg	88		64-162		
1234678-HpCDD	0.424 J	0.0176	5.00	ng/kg	88		70-140		
OCDD	0.748 J	0.0150	10.0	ng/kg	88		78-144		
2378-TCDF	0.0216 J	0.0169	1.00	ng/kg	88		75-158		
12378-PeCDF	0.0721 J	0.0124	5.00	ng/kg	88		80-134		
23478-PeCDF	0.194 J	0.0111	5.00	ng/kg	89		68-160		
123478-HxCDF	0.293 J	0.0182	5.00	ng/kg	88		72-134		
123678-HxCDF	0.238 J	0.0169	5.00	ng/kg	86		84-130		
123789-HxCDF	0.155 J	0.0207	5.00	ng/kg	87		78-130		
234678-HxCDF	0.380 J	0.0175	5.00	ng/kg	87		70-156		
1234678-HpCDF	1.68 J	0.0116	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.192 J	0.0168	5.00	ng/kg	90		78-138		
OCDF	0.853 J	0.0157	10.0	ng/kg	87		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: 12/23/10 at 01:40 PM

Group Number: 1220969

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: 10322162401B 28a Total Solids by 160.3									
Sample number(s): 6138706-6138711						BKG: P138688 10.6	9.9	6	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: 10a Dioxin/Furan by EPA 1613B

Batch number: 10317002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6138712	40	74	67	66	68	65
Blank	60	74	66	64	67	70
OPR	63	74	66	65	67	69
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
6138712	64	60	51	54	66	68
Blank	63	59	51	66	73	68
OPR	66	57	48	70	74	68
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
6138712	63	64	63	55	67	68
Blank	62	66	62	54	64	69
OPR	65	67	65	58	69	71
Limits:	28-130	28-130	23-140	17-157	24-169	24-185

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

Batch number: 10323001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6138706	75	83	65	64	65	63
6138707	60	79	61	61	62	62
6138708	81	90	69	70	70	71
6138709	68	85	70	73	72	70
6138710	75	89	67	72	70	67
6138711	65	83	66	73	67	61
Blank	84	95	78	80	79	76
OPR	81	89	73	77	75	68
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: 12/23/10 at 01:40 PM

Group Number: 1220969

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD
6138706	64	56	44	82	87	70
6138707	62	55	44	76	82	66
6138708	72	60	48	81	93	74
6138709	80	64	53	71	90	75
6138710	77	59	49	78	96	76
6138711	75	55	45	70	86	68
Blank	82	67	52	88	97	86
OPR	75	60	51	83	97	79
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
6138706	66	68	63	51	68	79
6138707	65	64	62	49	57	75
6138708	72	73	69	56	70	87
6138709	77	75	75	65	62	87
6138710	71	73	70	60	71	86
6138711	74	70	65	55	63	84
Blank	80	81	78	62	74	91
OPR	79	78	71	69	71	81
Limits:	28-130	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.

[illegible]

6138706-712

CHAIN OF CUSTODY RECORD

[illegible]

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.

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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

January 19, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/13/2010

Group Number: 1221176

SDG: DX008

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-096-SA5C-SB-4.0-5.0 Soil	6140332
SL-096-SA5C-SB-9.0-10.0 Soil	6140333
SL-097-SA5C-SB-4.0-5.0 Soil	6140334
SL-097-SA5C-SB-9.0-10.0 Soil	6140335
SL-088-SA5C-SB-4.0-5.0 Soil	6140336
SL-088-SA5C-SB-8.5-9.5 Soil	6140337

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,



Charles J. Neslund
Manager



Analysis Report

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Page 1 of 4

Sample Description: SL-096-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-4.0-5.0

LLI Sample # SW 6140332
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:50

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-4 SDG#: DX008-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-096-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-4.0-5.0

LLI Sample # SW 6140332
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:50

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-4 SDG#: DX008-08

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	0.0108 JB	0.00917	1.12	1
11031	12378-PeCDD	40321-76-4	0.0434 J	0.0104	5.59	1
11031	123478-HxCDD	39227-28-6	0.0533 JBQ	0.0119	5.59	1
11031	123678-HxCDD	57653-85-7	0.0558 JBQ	0.0124	5.59	1
11031	123789-HxCDD	19408-74-3	0.0591 JBQ	0.0125	5.59	1
11031	1234678-HpCDD	35822-46-9	0.456 JB	0.0158	5.59	1
11031	OCDD	3268-87-9	1.75 JB	0.0195	11.2	1
11031	2378-TCDF	51207-31-9	0.0192 JBQ	0.0129	1.12	1
11031	12378-PeCDF	57117-41-6	0.0637 JB	0.00895	5.59	1
11031	23478-PeCDF	57117-31-4	0.178 JB	0.00828	5.59	1
11031	123478-HxCDF	70648-26-9	0.198 JB	0.0152	5.59	1
11031	123678-HxCDF	57117-44-9	0.181 JBQ	0.0145	5.59	1
11031	123789-HxCDF	72918-21-9	0.107 JBQ	0.0177	5.59	1
11031	234678-HxCDF	60851-34-5	0.262 JB	0.0143	5.59	1
11031	1234678-HpCDF	67562-39-4	1.30 JB	0.0133	5.59	1
11031	1234789-HpCDF	55673-89-7	0.161 JB	0.0194	5.59	1
11031	OCDF	39001-02-0	0.631 JBQ	0.0177	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	83	25 - 164
13C12-12378-PeCDD	95	25 - 181
13C12-123478-HxCDD	85	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	45	17 - 157
13C12-1278-TCDD (CRS)	83	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-096-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-4.0-5.0

LLI Sample # SW 6140332
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:50

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-4 SDG#: DX008-08

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-096-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-4.0-5.0

LLI Sample # SW 6140332
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:50

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/13/2010 09:25

Suite 210

Reported: 01/19/2011 17:01

Chantilly VA 20151

D96-4 SDG#: DX008-08

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	10323001	12/04/2010 07:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-096-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-9.0-10.0

LLI Sample # SW 6140333
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:55

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-9 SDG#: DX008-09

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	28a 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-096-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-9.0-10.0

LLI Sample # SW 6140333
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:55

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-9 SDG#: DX008-09

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	0.0179 JB	0.0106	1.08	1
11031	12378-PeCDD	40321-76-4	0.0448 JQ	0.0173	5.39	1
11031	123478-HxCDD	39227-28-6	0.0432 JBQ	0.0160	5.39	1
11031	123678-HxCDD	57653-85-7	0.0781 JBQ	0.0167	5.39	1
11031	123789-HxCDD	19408-74-3	0.0533 JB	0.0163	5.39	1
11031	1234678-HpCDD	35822-46-9	0.550 JB	0.0221	5.39	1
11031	OCDD	3268-87-9	3.19 JB	0.0222	10.8	1
11031	2378-TCDF	51207-31-9	0.0520 JB	0.0140	1.08	1
11031	12378-PeCDF	57117-41-6	0.0922 JBQ	0.0117	5.39	1
11031	23478-PeCDF	57117-31-4	0.186 JB	0.0113	5.39	1
11031	123478-HxCDF	70648-26-9	0.191 JB	0.0184	5.39	1
11031	123678-HxCDF	57117-44-9	0.143 JB	0.0170	5.39	1
11031	123789-HxCDF	72918-21-9	0.103 JB	0.0198	5.39	1
11031	234678-HxCDF	60851-34-5	0.254 JB	0.0175	5.39	1
11031	1234678-HpCDF	67562-39-4	0.979 JB	0.0111	5.39	1
11031	1234789-HpCDF	55673-89-7	0.127 JB	0.0163	5.39	1
11031	OCDF	39001-02-0	0.625 JB	0.0191	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	90	25 - 181
13C12-123478-HxCDD	79	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	88	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	84	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	81	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-096-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-9.0-10.0

LLI Sample # SW 6140333
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:55

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-9 SDG#: DX008-09

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-096-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-096-SA5C-SB-9.0-10.0

LLI Sample # SW 6140333
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 10:55

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D96-9 SDG#: DX008-09

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	10323001	12/18/2010 01:24	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-097-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-4.0-5.0

LLI Sample # SW 6140334
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:05

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-4 SDG#: DX008-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	8.3	0.50	0.50	1

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

Sample Description: SL-097-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-4.0-5.0

LLI Sample # SW 6140334
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:05

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-4 SDG#: DX008-10

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	0.00960 U	0.00960	1.09	1
11031	12378-PeCDD	40321-76-4	0.0204 JQ	0.0143	5.45	1
11031	123478-HxCDD	39227-28-6	0.0257 JB	0.0117	5.45	1
11031	123678-HxCDD	57653-85-7	0.0500 JBQ	0.0113	5.45	1
11031	123789-HxCDD	19408-74-3	0.0352 JBQ	0.0119	5.45	1
11031	1234678-HpCDD	35822-46-9	0.329 JB	0.0157	5.45	1
11031	OCDD	3268-87-9	0.934 JB	0.0191	10.9	1
11031	2378-TCDF	51207-31-9	0.0111 U	0.0111	1.09	1
11031	12378-PeCDF	57117-41-6	0.0381 JBQ	0.00872	5.45	1
11031	23478-PeCDF	57117-31-4	0.133 JB	0.00862	5.45	1
11031	123478-HxCDF	70648-26-9	0.173 JBQ	0.0136	5.45	1
11031	123678-HxCDF	57117-44-9	0.151 JB	0.0125	5.45	1
11031	123789-HxCDF	72918-21-9	0.0792 JB	0.0159	5.45	1
11031	234678-HxCDF	60851-34-5	0.263 JB	0.0132	5.45	1
11031	1234678-HpCDF	67562-39-4	1.06 JB	0.00916	5.45	1
11031	1234789-HpCDF	55673-89-7	0.105 JBQ	0.0145	5.45	1
11031	OCDF	39001-02-0	0.591 JB	0.0181	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	82	25 - 164
13C12-12378-PeCDD	99	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	75	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	78	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	42	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-097-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-4.0-5.0

LLI Sample # SW 6140334
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:05

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-4 SDG#: DX008-10

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-097-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-4.0-5.0

LLI Sample # SW 6140334
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:05

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-4 SDG#: DX008-10

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	10323001	12/04/2010 09:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-097-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-9.0-10.0

LLI Sample # SW 6140335
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:10

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-9 SDG#: DX008-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-097-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-9.0-10.0

LLI Sample # SW 6140335
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:10

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-9 SDG#: DX008-11

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	0.0165 JBQ	0.00743	1.13	1
11031	12378-PeCDD	40321-76-4	0.0113 J	0.00968	5.63	1
11031	123478-HxCDD	39227-28-6	0.0130 JB	0.00946	5.63	1
11031	123678-HxCDD	57653-85-7	0.0225 JBQ	0.00935	5.63	1
11031	123789-HxCDD	19408-74-3	0.0200 JBQ	0.00980	5.63	1
11031	1234678-HpCDD	35822-46-9	0.189 JBQ	0.0113	5.63	1
11031	OCDD	3268-87-9	0.774 JB	0.0137	11.3	1
11031	2378-TCDF	51207-31-9	0.00901 U	0.00901	1.13	1
11031	12378-PeCDF	57117-41-6	0.0186 JBQ	0.00518	5.63	1
11031	23478-PeCDF	57117-31-4	0.0768 JB	0.00507	5.63	1
11031	123478-HxCDF	70648-26-9	0.0736 JBQ	0.00991	5.63	1
11031	123678-HxCDF	57117-44-9	0.0491 JBQ	0.00912	5.63	1
11031	123789-HxCDF	72918-21-9	0.0382 JB	0.0109	5.63	1
11031	234678-HxCDF	60851-34-5	0.0893 JB	0.00923	5.63	1
11031	1234678-HpCDF	67562-39-4	0.329 JB	0.00597	5.63	1
11031	1234789-HpCDF	55673-89-7	0.0494 JB	0.0101	5.63	1
11031	OCDF	39001-02-0	0.222 JB	0.0128	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	91	24 - 185
13C12-23478-PeCDF	88	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	86	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	74	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-097-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-9.0-10.0

LLI Sample # SW 6140335
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:10

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D97-9 SDG#: DX008-11

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-097-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-097-SA5C-SB-9.0-10.0

LLI Sample # SW 6140335
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 09:10

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/13/2010 09:25

Suite 210

Reported: 01/19/2011 17:01

Chantilly VA 20151

D97-9 SDG#: DX008-11

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	10323001	12/04/2010 10:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-088-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-4.0-5.0

LLI Sample # SW 6140336
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:20

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-4 SDG#: DX008-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-088-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-4.0-5.0

LLI Sample # SW 6140336
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:20

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-4 SDG#: DX008-12

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	0.0167 U	0.0167	1.18	1
11031	12378-PeCDD	40321-76-4	0.0198 U	0.0198	5.92	1
11031	123478-HxCDD	39227-28-6	0.0267 JBQ	0.0169	5.92	1
11031	123678-HxCDD	57653-85-7	0.0886 JB	0.0169	5.92	1
11031	123789-HxCDD	19408-74-3	0.0878 JBQ	0.0180	5.92	1
11031	1234678-HpCDD	35822-46-9	1.57 JBQ	0.0310	5.92	1
11031	OCDD	3268-87-9	23.3 B	0.0365	11.8	1
11031	2378-TCDF	51207-31-9	0.0173 U	0.0173	1.18	1
11031	12378-PeCDF	57117-41-6	0.0459 JBQ	0.0109	5.92	1
11031	23478-PeCDF	57117-31-4	0.0909 JBQ	0.00995	5.92	1
11031	123478-HxCDF	70648-26-9	0.0960 JB	0.0174	5.92	1
11031	123678-HxCDF	57117-44-9	0.0570 JB	0.0156	5.92	1
11031	123789-HxCDF	72918-21-9	0.0762 JB	0.0218	5.92	1
11031	234678-HxCDF	60851-34-5	0.112 JB	0.0173	5.92	1
11031	1234678-HpCDF	67562-39-4	0.626 JB	0.0140	5.92	1
11031	1234789-HpCDF	55673-89-7	0.0585 JBQ	0.0231	5.92	1
11031	OCDF	39001-02-0	0.716 JB	0.0278	11.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	39	25 - 164
13C12-12378-PeCDD	54	25 - 181
13C12-123478-HxCDD	44	32 - 141
13C12-123678-HxCDD	45	28 - 130
13C12-123789-HxCDD	45	28 - 130
13C12-1234678-HpCDD	43	23 - 140
13C12-OCDD	36	17 - 157
13C12-2378-TCDF	40	24 - 169
13C12-12378-PeCDF	50	24 - 185
13C12-23478-PeCDF	51	21 - 178
13C12-123478-HxCDF	42	26 - 152
13C12-123678-HxCDF	45	26 - 123
13C12-234678-HxCDF	42	28 - 136
13C12-123789-HxCDF	39	29 - 147
13C12-1234678-HpCDF	49	28 - 143
13C12-1234789-HpCDF	35	26 - 138
13C12-OCDF	28	17 - 157
13C12-1278-TCDD (CRS)	42	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-088-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-4.0-5.0

LLI Sample # SW 6140336
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:20

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-4 SDG#: DX008-12

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-088-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-4.0-5.0

LLI Sample # SW 6140336
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:20

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-4 SDG#: DX008-12

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	10323001	12/04/2010 11:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-088-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-8.5-9.5

LLI Sample # SW 6140337
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:25

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-8 SDG#: DX008-13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	14.3	0.50	0.50	1

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

Sample Description: SL-088-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-8.5-9.5

LLI Sample # SW 6140337
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:25

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-8 SDG#: DX008-13

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	0.0120 U	0.0120	1.17	1
11031	12378-PeCDD	40321-76-4	0.0264 JQ	0.0139	5.83	1
11031	123478-HxCDD	39227-28-6	0.0163 JBQ	0.0131	5.83	1
11031	123678-HxCDD	57653-85-7	0.0232 JBQ	0.0130	5.83	1
11031	123789-HxCDD	19408-74-3	0.0189 JBQ	0.0133	5.83	1
11031	1234678-HpCDD	35822-46-9	0.181 JB	0.0167	5.83	1
11031	OCDD	3268-87-9	0.450 JB	0.0205	11.7	1
11031	2378-TCDF	51207-31-9	0.0113 U	0.0113	1.17	1
11031	12378-PeCDF	57117-41-6	0.00863 U	0.00863	5.83	1
11031	23478-PeCDF	57117-31-4	0.0561 JBQ	0.00793	5.83	1
11031	123478-HxCDF	70648-26-9	0.0851 JB	0.0123	5.83	1
11031	123678-HxCDF	57117-44-9	0.0683 JB	0.0112	5.83	1
11031	123789-HxCDF	72918-21-9	0.0323 JBQ	0.0145	5.83	1
11031	234678-HxCDF	60851-34-5	0.107 JBQ	0.0119	5.83	1
11031	1234678-HpCDF	67562-39-4	0.377 JB	0.00805	5.83	1
11031	1234789-HpCDF	55673-89-7	0.0422 JB	0.0125	5.83	1
11031	OCDF	39001-02-0	0.243 JBQ	0.0215	11.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	53	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	72	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-088-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-8.5-9.5

LLI Sample # SW 6140337
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:25

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

Submitted: 11/13/2010 09:25

Reported: 01/19/2011 17:01

D88-8 SDG#: DX008-13

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-088-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SB-8.5-9.5

LLI Sample # SW 6140337
LLI Group # 1221176
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/12/2010 14:25

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/13/2010 09:25

Suite 210

Reported: 01/19/2011 17:01

Chantilly VA 20151

D88-8 SDG#: DX008-13

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	10323001	12/04/2010 12:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 01/19/11 at 05:01 PM

Group Number: 1221176

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: 10327162401A 28a Moisture Content by 160.3	Sample number(s): 6140332-6140337				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: 10323001	Sample number(s): 6140332-6140337								
2378-TCDD	0.0306 J	0.0118	1.00	ng/kg	85		67-158		
12378-PeCDD	0.0123 U	0.0123	5.00	ng/kg	87		70-142		
123478-HxCDD	0.0399 J	0.0140	5.00	ng/kg	89		70-164		
123678-HxCDD	0.0582 J	0.0146	5.00	ng/kg	86		76-134		
123789-HxCDD	0.0559 J	0.0149	5.00	ng/kg	88		64-162		
1234678-HpCDD	0.424 J	0.0176	5.00	ng/kg	88		70-140		
OCDD	0.748 J	0.0150	10.0	ng/kg	88		78-144		
2378-TCDF	0.0216 J	0.0169	1.00	ng/kg	88		75-158		
12378-PeCDF	0.0721 J	0.0124	5.00	ng/kg	88		80-134		
23478-PeCDF	0.194 J	0.0111	5.00	ng/kg	89		68-160		
123478-HxCDF	0.293 J	0.0182	5.00	ng/kg	88		72-134		
123678-HxCDF	0.238 J	0.0169	5.00	ng/kg	86		84-130		
123789-HxCDF	0.155 J	0.0207	5.00	ng/kg	87		78-130		
234678-HxCDF	0.380 J	0.0175	5.00	ng/kg	87		70-156		
1234678-HpCDF	1.68 J	0.0116	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.192 J	0.0168	5.00	ng/kg	90		78-138		
OCDF	0.853 J	0.0157	10.0	ng/kg	87		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: 10327162401A 28a Moisture Content by 160.3	Sample number(s): 6140332-6140337					BKG: P141644 14.1	14.4	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: 10a Dioxin/Furan by EPA 1613B

*- Outside of specification

** - This limit was used in 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: 01/19/11 at 05:01 PM

Group Number: 1221176

Surrogate Quality Control

Batch number: 10323001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6140332	83	94	73	73	75	71
6140333	86	87	73	75	74	74
6140334	82	95	70	74	74	71
6140335	71	88	72	76	75	72
6140336	39	51	42	45	42	39
6140337	72	83	66	70	68	67
Blank	84	95	78	80	79	76
OPR	81	89	73	77	75	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
6140332	71	58	45	83	95	85
6140333	84	66	55	81	90	79
6140334	76	56	42	86	99	76
6140335	86	61	48	74	91	78
6140336	49	35	28	42	54	44
6140337	72	54	42	76	86	68
Blank	82	67	52	88	97	86
OPR	75	60	51	83	97	79

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
6140332	78	75	70	56	77	91
6140333	76	76	77	68	78	88
6140334	75	76	70	56	78	92
6140335	77	78	77	65	64	91
6140336	45	45	43	36	40	50
6140337	72	70	65	53	67	83
Blank	80	81	78	62	74	91
OPR	79	78	71	69	71	81

Limits: 28-130 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#1221176

sample# 6140332-37

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																		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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1631B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A		**Cyanide EPA 9012B	**pH EPA 9045C
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-096-SA5C-SB-4.5	11.12.10	1045	soil	none	4 - Encore samplers	X	X																			
SL-096-SA5C-SB-4.0-5.0	11.12.10	1050	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X	X											
SL-096-SA5C-SB-9.0-10.0	11.12.10	1055	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-097-SA5C-SB-4.5	11.12.10	0900	soil	none	4 - Encore samplers	X	X																			
SL-097-SA5C-SB-4.0-5.0	11.12.10	0905	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-097-SA5C-SB-9.0-10.0	11.12.10	0910	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-088-SA5C-SB-4.5	11.12.10	1415	soil	none	4 - Encore samplers	X	X																			
SL-088-SA5C-SB-4.0-5.0	11.12.10	1420	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
SL-088-SA5C-SB-8.5-9.5	11.12.10	1425	soil	none	2 - 16 oz jars			X	X	X	X	X	X	X												
TB-111210	11.12.10	1300	water	HCl	3 - 40 ml VOA vials	X	X																			Trip blank
Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)										Laboratory:										
<i>[Signature]</i>	11.12.10 1530	<i>[Signature]</i>	11/17/10	<i>[Signature]</i>	11/17/10	<i>[Signature]</i>										Lancaster Laboratories, Inc.										
Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Airbill No.										Tracking Number 869514313242										
<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		00732992																				

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 23, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/16/2010

Group Number: 1221364

SDG: DX008

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample Description

SL-088-SA5C-SS-0.0-0.5	Soil
SL-093-SA5C-SB-4.0-5.0	Soil
SL-093-SA5C-SB-8.0-9.0	Soil
SL-094-SA5C-SB-4.0-5.0	Soil
SL-094-SA5C-SB-8.5-9.5	Soil
SL-090-SA5C-SB-4.0-5.0	Soil

Lancaster Labs (LLI) #

6141653
6141654
6141655
6141656
6141657
6141658

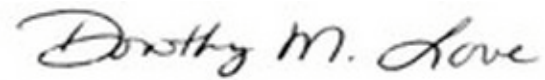
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-088-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SS-0.0-0.5

LLI Sample # SW 6141653
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:40 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D8800 SDG#: DX008-14

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	28a Total Solids by 160.3	n.a.	14.1	0.50	0.50	1

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

Sample Description: SL-088-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SS-0.0-0.5

LLI Sample # SW 6141653
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:40 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D8800 SDG#: DX008-14

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	0.0199 JBQ	0.0111	1.16	1
11031	12378-PeCDD	40321-76-4	0.0915 JQ	0.0199	5.82	1
11031	123478-HxCDD	39227-28-6	0.102 JBQ	0.0211	5.82	1
11031	123678-HxCDD	57653-85-7	0.559 JB	0.0206	5.82	1
11031	123789-HxCDD	19408-74-3	0.430 JB	0.0214	5.82	1
11031	1234678-HpCDD	35822-46-9	15.2 B	0.0334	5.82	1
11031	OCDD	3268-87-9	157 B	0.0447	11.6	1
11031	2378-TCDF	51207-31-9	0.0790 JBQ	0.0221	1.16	1
11031	12378-PeCDF	57117-41-6	0.831 JB	0.0168	5.82	1
11031	23478-PeCDF	57117-31-4	0.223 JB	0.0153	5.82	1
11031	123478-HxCDF	70648-26-9	0.289 JB	0.0173	5.82	1
11031	123678-HxCDF	57117-44-9	0.206 JB	0.0163	5.82	1
11031	123789-HxCDF	72918-21-9	0.272 JB	0.0180	5.82	1
11031	234678-HxCDF	60851-34-5	0.205 JBQ	0.0158	5.82	1
11031	1234678-HpCDF	67562-39-4	2.35 JB	0.0126	5.82	1
11031	1234789-HpCDF	55673-89-7	0.153 JBQ	0.0171	5.82	1
11031	OCDF	39001-02-0	4.24 JB	0.0182	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	84	25 - 164
13C12-12378-PeCDD	96	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	89	24 - 185
13C12-23478-PeCDF	92	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	75	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	52	17 - 157
13C12-1278-TCDD (CRS)	83	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-088-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SS-0.0-0.5

LLI Sample # SW 6141653
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:40 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D8800 SDG#: DX008-14

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

Sample Description: SL-088-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-088-SA5C-SS-0.0-0.5

LLI Sample # SW 6141653
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:40 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D8800 SDG#: DX008-14

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	10323001	12/04/2010 13:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-093-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-4.0-5.0

LLI Sample # SW 6141654
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:44 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9345 SDG#: DX008-15

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	28a Total Solids 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-093-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-4.0-5.0

LLI Sample # SW 6141654
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:44 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9345 SDG#: DX008-15

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	0.0164 JBQ	0.00833	1.14	1
11031	12378-PeCDD	40321-76-4	0.0368 JQ	0.0102	5.71	1
11031	123478-HxCDD	39227-28-6	0.0282 JB	0.0104	5.71	1
11031	123678-HxCDD	57653-85-7	0.0364 JB	0.0106	5.71	1
11031	123789-HxCDD	19408-74-3	0.0591 JBQ	0.0110	5.71	1
11031	1234678-HpCDD	35822-46-9	0.207 JB	0.0128	5.71	1
11031	OCDD	3268-87-9	0.501 JBQ	0.0168	11.4	1
11031	2378-TCDF	51207-31-9	0.00936 U	0.00936	1.14	1
11031	12378-PeCDF	57117-41-6	0.0266 JBQ	0.00708	5.71	1
11031	23478-PeCDF	57117-31-4	0.0994 JB	0.00616	5.71	1
11031	123478-HxCDF	70648-26-9	0.0985 JB	0.0107	5.71	1
11031	123678-HxCDF	57117-44-9	0.0720 JBQ	0.00993	5.71	1
11031	123789-HxCDF	72918-21-9	0.0821 JBQ	0.0140	5.71	1
11031	234678-HxCDF	60851-34-5	0.116 JBQ	0.0107	5.71	1
11031	1234678-HpCDF	67562-39-4	0.414 JBQ	0.0104	5.71	1
11031	1234789-HpCDF	55673-89-7	0.107 JBQ	0.0170	5.71	1
11031	OCDF	39001-02-0	0.272 JBQ	0.0193	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	97	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	80	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	79	24 - 169
13C12-12378-PeCDF	93	24 - 185
13C12-23478-PeCDF	94	21 - 178
13C12-123478-HxCDF	74	26 - 152
13C12-123678-HxCDF	79	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	43	17 - 157
13C12-1278-TCDD (CRS)	84	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-093-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-4.0-5.0

LLI Sample # SW 6141654
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:44 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9345 SDG#: DX008-15

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-093-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-4.0-5.0

LLI Sample # SW 6141654
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:44 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9345 SDG#: DX008-15

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	10323001	12/04/2010 17:43	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-093-SA5C-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-8.0-9.0

LLI Sample # SW 6141655
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:48 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9389 SDG#: DX008-16

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	28a Total Solids by 160.3	n.a.	10.0	0.50	0.50	1

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

Sample Description: SL-093-SA5C-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-8.0-9.0

LLI Sample # SW 6141655
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:48 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9389 SDG#: DX008-16

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	0.0208 JBQ	0.00822	1.11	1
11031	12378-PeCDD	40321-76-4	0.0369 JQ	0.0129	5.56	1
11031	123478-HxCDD	39227-28-6	0.0281 JB	0.0114	5.56	1
11031	123678-HxCDD	57653-85-7	0.0533 JBQ	0.0113	5.56	1
11031	123789-HxCDD	19408-74-3	0.0486 JB	0.0119	5.56	1
11031	1234678-HpCDD	35822-46-9	0.257 JBQ	0.0156	5.56	1
11031	OCDD	3268-87-9	0.733 JBQ	0.0192	11.1	1
11031	2378-TCDF	51207-31-9	0.0204 JBQ	0.0101	1.11	1
11031	12378-PeCDF	57117-41-6	0.0326 JB	0.00700	5.56	1
11031	23478-PeCDF	57117-31-4	0.0828 JB	0.00611	5.56	1
11031	123478-HxCDF	70648-26-9	0.0971 JBQ	0.0116	5.56	1
11031	123678-HxCDF	57117-44-9	0.0836 JBQ	0.0104	5.56	1
11031	123789-HxCDF	72918-21-9	0.0790 JBQ	0.0132	5.56	1
11031	234678-HxCDF	60851-34-5	0.113 JB	0.0112	5.56	1
11031	1234678-HpCDF	67562-39-4	0.427 JB	0.00956	5.56	1
11031	1234789-HpCDF	55673-89-7	0.0882 JBQ	0.0129	5.56	1
11031	OCDF	39001-02-0	0.302 JB	0.0188	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	76	25 - 164
13C12-12378-PeCDD	91	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	77	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	90	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	81	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-093-SA5C-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-8.0-9.0

LLI Sample # SW 6141655
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:48 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9389 SDG#: DX008-16

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-093-SA5C-SB-8.0-9.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-093-SA5C-SB-8.0-9.0

LLI Sample # SW 6141655
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 09:48 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9389 SDG#: DX008-16

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	10323001	12/04/2010 18:42	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-094-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-4.0-5.0

LLI Sample # SW 6141656
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:10 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9445 SDG#: DX008-17

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	28a Total Solids by 160.3	n.a.	13.3	0.50	0.50	1

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

Sample Description: SL-094-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-4.0-5.0

LLI Sample # SW 6141656
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:10 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9445 SDG#: DX008-17

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	0.00999 JBQ	0.00784	1.15	1
11031	12378-PeCDD	40321-76-4	0.0377 JQ	0.00923	5.77	1
11031	123478-HxCDD	39227-28-6	0.0343 JB	0.0107	5.77	1
11031	123678-HxCDD	57653-85-7	0.104 JBQ	0.0108	5.77	1
11031	123789-HxCDD	19408-74-3	0.117 JBQ	0.0112	5.77	1
11031	1234678-HpCDD	35822-46-9	1.27 JB	0.0148	5.77	1
11031	OCDD	3268-87-9	13.6 B	0.0206	11.5	1
11031	2378-TCDF	51207-31-9	0.0253 JBQ	0.00807	1.15	1
11031	12378-PeCDF	57117-41-6	0.0538 JB	0.00554	5.77	1
11031	23478-PeCDF	57117-31-4	0.104 JB	0.00496	5.77	1
11031	123478-HxCDF	70648-26-9	0.113 JB	0.00877	5.77	1
11031	123678-HxCDF	57117-44-9	0.0872 JB	0.00854	5.77	1
11031	123789-HxCDF	72918-21-9	0.112 JB	0.0111	5.77	1
11031	234678-HxCDF	60851-34-5	0.115 JB	0.00888	5.77	1
11031	1234678-HpCDF	67562-39-4	0.659 JB	0.00923	5.77	1
11031	1234789-HpCDF	55673-89-7	0.0968 JBQ	0.0120	5.77	1
11031	OCDF	39001-02-0	1.01 JB	0.0155	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	80	25 - 164
13C12-12378-PeCDD	97	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	80	24 - 169
13C12-12378-PeCDF	92	24 - 185
13C12-23478-PeCDF	95	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	77	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	52	17 - 157
13C12-1278-TCDD (CRS)	82	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-094-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-4.0-5.0

LLI Sample # SW 6141656
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:10 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9445 SDG#: DX008-17

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-094-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-4.0-5.0

LLI Sample # SW 6141656
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:10 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9445 SDG#: DX008-17

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	10323001	12/04/2010 19:42	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-094-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-8.5-9.5

LLI Sample # SW 6141657
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:14 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9489 SDG#: DX008-18

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	28a Total Solids by 160.3	n.a.	12.9	0.50	0.50	1

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

Sample Description: SL-094-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-8.5-9.5

LLI Sample # SW 6141657
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:14 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9489 SDG#: DX008-18

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	0.0136 JB	0.00999	1.15	1
11031	12378-PeCDD	40321-76-4	0.0131 U	0.0131	5.74	1
11031	123478-HxCDD	39227-28-6	0.0261 JBQ	0.0123	5.74	1
11031	123678-HxCDD	57653-85-7	0.0284 JBQ	0.0122	5.74	1
11031	123789-HxCDD	19408-74-3	0.0307 JBQ	0.0130	5.74	1
11031	1234678-HpCDD	35822-46-9	0.481 JB	0.0144	5.74	1
11031	OCDD	3268-87-9	3.28 JB	0.0197	11.5	1
11031	2378-TCDF	51207-31-9	0.0108 JB	0.00907	1.15	1
11031	12378-PeCDF	57117-41-6	0.0288 JB	0.00631	5.74	1
11031	23478-PeCDF	57117-31-4	0.0915 JBQ	0.00563	5.74	1
11031	123478-HxCDF	70648-26-9	0.0664 JBQ	0.0117	5.74	1
11031	123678-HxCDF	57117-44-9	0.0398 JB	0.0106	5.74	1
11031	123789-HxCDF	72918-21-9	0.0394 JBQ	0.0130	5.74	1
11031	234678-HxCDF	60851-34-5	0.111 JB	0.0109	5.74	1
11031	1234678-HpCDF	67562-39-4	0.476 JB	0.00781	5.74	1
11031	1234789-HpCDF	55673-89-7	0.0578 JBQ	0.0101	5.74	1
11031	OCDF	39001-02-0	0.365 JBQ	0.0142	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	86	25 - 164
13C12-12378-PeCDD	107	25 - 181
13C12-123478-HxCDD	82	32 - 141
13C12-123678-HxCDD	82	28 - 130
13C12-123789-HxCDD	82	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	85	24 - 169
13C12-12378-PeCDF	98	24 - 185
13C12-23478-PeCDF	104	21 - 178
13C12-123478-HxCDF	78	26 - 152
13C12-123678-HxCDF	81	26 - 123
13C12-234678-HxCDF	82	28 - 136
13C12-123789-HxCDF	81	29 - 147
13C12-1234678-HpCDF	80	28 - 143
13C12-1234789-HpCDF	74	26 - 138
13C12-OCDF	63	17 - 157
13C12-1278-TCDD (CRS)	89	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

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Page 3 of 4

Sample Description: SL-094-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-8.5-9.5

LLI Sample # SW 6141657
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:14 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9489 SDG#: DX008-18

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-094-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-094-SA5C-SB-8.5-9.5

LLI Sample # SW 6141657
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 11:14 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9489 SDG#: DX008-18

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	10323001	12/04/2010 20:42	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-090-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SB-4.0-5.0

LLI Sample # SW 6141658
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 14:09 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9045 SDG#: DX008-19*

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	28a Total Solids by 160.3	n.a.	12.2	0.50	0.50	1

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

Sample Description: SL-090-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SB-4.0-5.0

LLI Sample # SW 6141658
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 14:09 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9045 SDG#: DX008-19*

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	0.0167 JBQ	0.0130	1.14	1
11031	12378-PeCDD	40321-76-4	0.0144 JQ	0.0125	5.69	1
11031	123478-HxCDD	39227-28-6	0.0231 JB	0.0144	5.69	1
11031	123678-HxCDD	57653-85-7	0.0831 JB	0.0150	5.69	1
11031	123789-HxCDD	19408-74-3	0.0615 JBQ	0.0148	5.69	1
11031	1234678-HpCDD	35822-46-9	0.671 JB	0.0165	5.69	1
11031	OCDD	3268-87-9	7.00 JB	0.0213	11.4	1
11031	2378-TCDF	51207-31-9	0.0201 JBQ	0.0116	1.14	1
11031	12378-PeCDF	57117-41-6	0.0386 JB	0.00888	5.69	1
11031	23478-PeCDF	57117-31-4	0.0914 JB	0.00843	5.69	1
11031	123478-HxCDF	70648-26-9	0.0718 JBQ	0.0136	5.69	1
11031	123678-HxCDF	57117-44-9	0.0690 JB	0.0128	5.69	1
11031	123789-HxCDF	72918-21-9	0.0980 JBQ	0.0149	5.69	1
11031	234678-HxCDF	60851-34-5	0.0957 JB	0.0128	5.69	1
11031	1234678-HpCDF	67562-39-4	0.455 JB	0.00866	5.69	1
11031	1234789-HpCDF	55673-89-7	0.0546 JB	0.0117	5.69	1
11031	OCDF	39001-02-0	0.509 JB	0.0173	11.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	74	25 - 164
13C12-12378-PeCDD	89	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	86	24 - 185
13C12-23478-PeCDF	87	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	54	17 - 157
13C12-1278-TCDD (CRS)	81	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-090-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SB-4.0-5.0

LLI Sample # SW 6141658
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 14:09 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9045 SDG#: DX008-19*

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-090-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-090-SA5C-SB-4.0-5.0

LLI Sample # SW 6141658
LLI Group # 1221364
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/15/2010 14:09 by PH

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

Submitted: 11/16/2010 09:15

Reported: 12/23/2010 13:43

D9045 SDG#: DX008-19*

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	10323001	12/04/2010 21:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10323001	11/19/2010 11:00	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401A	11/24/2010 05:21	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/23/10 at 01:43 PM

Group Number: 1221364

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10327162401A 28a Total Solids by 160.3	Sample number(s): 6141653-6141658				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10323001	Sample number(s): 6141653-6141658								
2378-TCDD	0.0306 J	0.0118	1.00	ng/kg	85		67-158		
12378-PeCDD	0.0123 U	0.0123	5.00	ng/kg	87		70-142		
123478-HxCDD	0.0399 J	0.0140	5.00	ng/kg	89		70-164		
123678-HxCDD	0.0582 J	0.0146	5.00	ng/kg	86		76-134		
123789-HxCDD	0.0559 J	0.0149	5.00	ng/kg	88		64-162		
1234678-HpCDD	0.424 J	0.0176	5.00	ng/kg	88		70-140		
OCDD	0.748 J	0.0150	10.0	ng/kg	88		78-144		
2378-TCDF	0.0216 J	0.0169	1.00	ng/kg	88		75-158		
12378-PeCDF	0.0721 J	0.0124	5.00	ng/kg	88		80-134		
23478-PeCDF	0.194 J	0.0111	5.00	ng/kg	89		68-160		
123478-HxCDF	0.293 J	0.0182	5.00	ng/kg	88		72-134		
123678-HxCDF	0.238 J	0.0169	5.00	ng/kg	86		84-130		
123789-HxCDF	0.155 J	0.0207	5.00	ng/kg	87		78-130		
234678-HxCDF	0.380 J	0.0175	5.00	ng/kg	87		70-156		
1234678-HpCDF	1.68 J	0.0116	5.00	ng/kg	89		82-122		
1234789-HpCDF	0.192 J	0.0168	5.00	ng/kg	90		78-138		
OCDF	0.853 J	0.0157	10.0	ng/kg	87		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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10327162401A 28a Total Solids by 160.3	Sample number(s): 6141653-6141658					BKG: P141644 14.1	14.4	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: 10a Dioxin/Furan by EPA 1613B

*- Outside of specification

** - This limit was used in 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: 12/23/10 at 01:43 PM

Group Number: 1221364

Surrogate Quality Control

Batch number: 10323001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6141653	84	92	73	74	76	75
6141654	80	94	74	79	76	66
6141655	76	90	75	76	75	70
6141656	80	95	78	77	77	72
6141657	86	104	78	81	82	81
6141658	74	87	73	73	74	72
Blank	84	95	78	80	79	76
OPR	81	89	73	77	75	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
6141653	72	67	52	83	96	76
6141654	80	56	43	84	97	76
6141655	73	63	48	81	91	78
6141656	76	66	52	82	97	80
6141657	80	74	63	89	107	82
6141658	76	64	54	81	89	77
Blank	82	67	52	88	97	86
OPR	75	60	51	83	97	79

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
6141653	77	78	72	57	80	89
6141654	80	77	71	57	79	93
6141655	76	77	71	56	77	86
6141656	79	79	75	59	80	92
6141657	82	82	79	70	85	98
6141658	73	74	71	61	74	86
Blank	80	81	78	62	74	91
OPR	79	78	71	69	71	81

Limits: 28-130 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

1221364

6141653-58

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						VOCs EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	Other Instructions and Notes
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-088-SA5C-SS-0.0-0.5	11.15.10	1140	soil	none	1 - 16 oz jar					X	X	X		X	X		X	X	
SL-088-SA5C-SS-0.0-0.5	11.15.10	1140	soil	none	1 - brass sleeve			X					X						
SL-093-SA5C-SB-4.5	11.15.10	0942	soil	none	4 - Encore samplers	X	X												
SL-093-SA5C-SB-4.0-5.0	11.15.10	0944	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-093-SA5C-SB-8.0-9.0	11.15.10	0948	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-094-SA5C-SB-4.5	11.15.10	1105	soil	none	4 - Encore samplers														
SL-094-SA5C-SB-4.0-5.0	11.15.10	1110	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-094-SA5C-SB-8.0-9.0	11.15.10	1114	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-090-SA5C-SB-4.5	11.15.10	1407	soil	none	4 - Encore samplers	X	X												
SL-090-SA5C-SB-4.0-5.0	11.15.10	1409	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
TB-111210	11.15.10	1630	water	HCl	3 - 40 ml VOA vials	X	X												Trip blank
RB 11/15/10																			
Relinquished by: (Signature) <i>[Signature]</i>						Date/Time 11.15.10 1530		Received for Laboratory by: (Signature) <i>[Signature]</i>		Date/Time 11/16/10 0915		Laboratory: Lancaster Laboratories, Inc.							
Received by: (Signature) <i>[Signature]</i>						Date/Time		Airbill No. 00732992		Tracking Number 869514313253									

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/17/2010
Group Number: 1221706
SDG: DX009
PO Number: 1203-004-007-AL
Release Number: TRACKING #11667
State of Sample Origin: CA

Client Sample Description

SL-083-SA5C-SB-2.5-3.5 Soil
SL-085-SA5C-SB-2.5-3.0 Soil
EB08-SA5C-111610 Water

Lancaster Labs (LLI) #

6143357
6143358
6143359

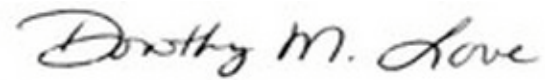
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-083-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-083-SA5C-SB-2.5-3.5

LLI Sample # SW 6143357
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 13:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD83 SDG#: DX009-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 7.4	% 0.50	% 0.50	1

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

Sample Description: SL-083-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-083-SA5C-SB-2.5-3.5

LLI Sample # SW 6143357
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 13:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD83 SDG#: DX009-01

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	0.0376 U	0.0376	1.08	1
11031	12378-PeCDD	40321-76-4	0.0724 JQ	0.0411	5.40	1
11031	123478-HxCDD	39227-28-6	0.0373 JQ	0.0335	5.40	1
11031	123678-HxCDD	57653-85-7	0.0681 JQ	0.0343	5.40	1
11031	123789-HxCDD	19408-74-3	0.0741 JQ	0.0336	5.40	1
11031	1234678-HpCDD	35822-46-9	0.513 JQ	0.0374	5.40	1
11031	OCDD	3268-87-9	0.859 J	0.0315	10.8	1
11031	2378-TCDF	51207-31-9	0.0360 U	0.0360	1.08	1
11031	12378-PeCDF	57117-41-6	0.0697 JQ	0.0228	5.40	1
11031	23478-PeCDF	57117-31-4	0.200 JQ	0.0201	5.40	1
11031	123478-HxCDF	70648-26-9	0.261 JQ	0.0380	5.40	1
11031	123678-HxCDF	57117-44-9	0.266 JQ	0.0366	5.40	1
11031	123789-HxCDF	72918-21-9	0.128 J	0.0427	5.40	1
11031	234678-HxCDF	60851-34-5	0.394 JQ	0.0371	5.40	1
11031	1234678-HpCDF	67562-39-4	1.86 J	0.0219	5.40	1
11031	1234789-HpCDF	55673-89-7	0.167 JQ	0.0292	5.40	1
11031	OCDF	39001-02-0	0.790 J	0.0410	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	77	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	77	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	65	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

Sample Description: SL-083-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-083-SA5C-SB-2.5-3.5

LLI Sample # SW 6143357
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 13:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD83 SDG#: DX009-01

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

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Sample Description: SL-083-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-083-SA5C-SB-2.5-3.5

LLI Sample # SW 6143357
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 13:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD83 SDG#: DX009-01

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	10333001	12/04/2010 06:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-085-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-085-SA5C-SB-2.5-3.0

LLI Sample # SW 6143358
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 15:03 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD85 SDG#: DX009-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	28a Total Solids by 160.3	n.a.	15.9	0.50	0.50	1

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

Sample Description: SL-085-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-085-SA5C-SB-2.5-3.0

LLI Sample # SW 6143358
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 15:03 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD85 SDG#: DX009-02

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	0.0296 U	0.0296	1.19	1
11031	12378-PeCDD	40321-76-4	0.0320 JQ	0.0273	5.95	1
11031	123478-HxCDD	39227-28-6	0.0297 JQ	0.0222	5.95	1
11031	123678-HxCDD	57653-85-7	0.0542 JQ	0.0225	5.95	1
11031	123789-HxCDD	19408-74-3	0.0564 JQ	0.0227	5.95	1
11031	1234678-HpCDD	35822-46-9	0.625 J	0.0279	5.95	1
11031	OCDD	3268-87-9	1.23 J	0.0219	11.9	1
11031	2378-TCDF	51207-31-9	0.0276 U	0.0276	1.19	1
11031	12378-PeCDF	57117-41-6	0.0500 J	0.0189	5.95	1
11031	23478-PeCDF	57117-31-4	0.183 JQ	0.0175	5.95	1
11031	123478-HxCDF	70648-26-9	0.282 J	0.0304	5.95	1
11031	123678-HxCDF	57117-44-9	0.241 JQ	0.0297	5.95	1
11031	123789-HxCDF	72918-21-9	0.0969 JQ	0.0326	5.95	1
11031	234678-HxCDF	60851-34-5	0.408 J	0.0288	5.95	1
11031	1234678-HpCDF	67562-39-4	1.85 J	0.0181	5.95	1
11031	1234789-HpCDF	55673-89-7	0.173 JQ	0.0229	5.95	1
11031	OCDF	39001-02-0	0.828 J	0.0295	11.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	77	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	80	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	78	24 - 185
13C12-23478-PeCDF	79	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	79	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	72	26 - 138
13C12-OCDF	63	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



Analysis Report

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Sample Description: SL-085-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-085-SA5C-SB-2.5-3.0

LLI Sample # SW 6143358
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 15:03 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD85 SDG#: DX009-02

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

Sample Description: SL-085-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-085-SA5C-SB-2.5-3.0

LLI Sample # SW 6143358
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 15:03 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

SLD85 SDG#: DX009-02

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	10333001	12/04/2010 07:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

Sample Description: EB08-SA5C-111610 Water
SSFL Area IV Collocated Soil Sampling
EB08-SA5C-111610

LLI Sample # WW 6143359
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 12:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

D83EB SDG#: DX009-03EB

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	0.250 JQ	0.240	2.11	1
10915	12378-PeCDD	40321-76-4	0.313 U	0.313	10.2	1
10915	123478-HxCDD	39227-28-6	0.146 JBQ	0.146	10.2	1
10915	123678-HxCDD	57653-85-7	0.271 JB	0.151	10.2	1
10915	123789-HxCDD	19408-74-3	0.218 JQ	0.165	10.2	1
10915	1234678-HpCDD	35822-46-9	2.44 JB	0.252	10.2	1
10915	OCDD	3268-87-9	4.95 JB	0.274	20.4	1
10915	2378-TCDF	51207-31-9	0.215 U	0.215	2.04	1
10915	12378-PeCDF	57117-41-6	0.148 U	0.148	10.2	1
10915	23478-PeCDF	57117-31-4	1.02 JBQ	0.129	10.2	1
10915	123478-HxCDF	70648-26-9	1.65 JBQ	0.238	10.2	1
10915	123678-HxCDF	57117-44-9	1.28 JBQ	0.239	10.2	1
10915	123789-HxCDF	72918-21-9	0.504 JBQ	0.282	10.2	1
10915	234678-HxCDF	60851-34-5	1.90 JB	0.233	10.2	1
10915	1234678-HpCDF	67562-39-4	9.28 JB	0.164	10.2	1
10915	1234789-HpCDF	55673-89-7	0.944 JBQ	0.207	10.2	1
10915	OCDF	39001-02-0	4.58 JBQ	0.303	20.4	1

Due to low recoveries for the labeled compound 13C12-2378-TCDD in the 10341001 batch the result for 2378-TCDD is reported from the 10330001 batch.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	51	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	63	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	65	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	64	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	52	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



Analysis Report

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Sample Description: EB08-SA5C-111610 Water
SSFL Area IV Collocated Soil Sampling
EB08-SA5C-111610

LLI Sample # WW 6143359
LLI Group # 1221706
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/16/2010 12:35 by PH

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

Submitted: 11/17/2010 09:15

Reported: 12/30/2010 14:57

D83EB SDG#: DX009-03EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
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	10330001	12/01/2010 23:10	Nelson H Risser	1
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	10341001	12/10/2010 00:53	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	10330001	11/26/2010 08:00	Deborah M Zimmerman	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	2	10341001	12/07/2010 09:00	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: 12/30/10 at 02:57 PM

Group Number: 1221706

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: 10327162401B 28a Total Solids by 160.3	Sample number(s): 6143357-6143358				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: 10330001 2378-TCDD	0.300 U	0.300	2.00	pg/l	94		67-158		

Batch number: 10333001	Sample number(s): 6143357-6143358								
2378-TCDD	0.0175 U	0.0175	1.00	ng/kg	100		67-158		
12378-PeCDD	0.0166 U	0.0166	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0575 J	0.0177	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0869 J	0.0180	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0795 J	0.0176	5.00	ng/kg	95		64-162		
1234678-HpCDD	0.459 J	0.0207	5.00	ng/kg	97		70-140		
OCDD	0.823 J	0.0270	10.0	ng/kg	96		78-144		
2378-TCDF	0.0202 U	0.0202	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0918 J	0.0145	5.00	ng/kg	97		80-134		
23478-PeCDF	0.205 J	0.0125	5.00	ng/kg	96		68-160		
123478-HxCDF	0.266 J	0.0219	5.00	ng/kg	98		72-134		
123678-HxCDF	0.216 J	0.0206	5.00	ng/kg	97		84-130		
123789-HxCDF	0.192 J	0.0246	5.00	ng/kg	97		78-130		
234678-HxCDF	0.381 J	0.0208	5.00	ng/kg	98		70-156		
1234678-HpCDF	1.58 J	0.0132	5.00	ng/kg	100		82-122		
1234789-HpCDF	0.190 J	0.0166	5.00	ng/kg	98		78-138		
OCDF	0.760 J	0.0240	10.0	ng/kg	97		63-170		

Batch number: 10341001	Sample number(s): 6143359								
12378-PeCDD	0.316 U	0.316	10.0	pg/l	87		70-142		
123478-HxCDD	0.370 J	0.211	10.0	pg/l	91		70-164		
123678-HxCDD	0.399 J	0.214	10.0	pg/l	86		76-134		
123789-HxCDD	0.219 U	0.219	10.0	pg/l	90		64-162		
1234678-HpCDD	2.60 J	0.285	10.0	pg/l	90		70-140		
OCDD	5.00 J	0.314	20.0	pg/l	91		78-144		
2378-TCDF	0.236 U	0.236	2.00	pg/l	90		75-158		
12378-PeCDF	0.416 J	0.159	10.0	pg/l	88		80-134		
23478-PeCDF	1.11 J	0.140	10.0	pg/l	88		68-160		
123478-HxCDF	1.36 J	0.272	10.0	pg/l	91		72-134		
123678-HxCDF	1.17 J	0.267	10.0	pg/l	91		84-130		
123789-HxCDF	0.723 J	0.330	10.0	pg/l	90		78-130		
234678-HxCDF	2.17 J	0.273	10.0	pg/l	91		70-156		
1234678-HpCDF	9.33 J	0.193	10.0	pg/l	92		82-122		
1234789-HpCDF	1.04 J	0.254	10.0	pg/l	92		78-138		
OCDF	4.55 J	0.358	20.0	pg/l	93		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: 12/30/10 at 02:57 PM

Group Number: 1221706

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: 10327162401B 28a Total Solids by 160.3	Sample number(s): 6143357-6143358 BKG: P144589 9.5 8.5 11 20								
Batch number: 10333001	Sample number(s): 6143357-6143358 UNSPK: P144637								
2378-TCDD	97	99	67-158	2	25				
12378-PeCDD	97	99	70-142	2	25				
123478-HxCDD	99	97	70-164	2	25				
123678-HxCDD	97	96	76-134	1	25				
123789-HxCDD	98	97	64-162	0	25				
1234678-HpCDD	97	96	70-140	1	25				
OCDD	98	96	78-144	2	25				
2378-TCDF	100	101	75-158	1	25				
12378-PeCDF	98	97	80-134	1	25				
23478-PeCDF	97	96	68-160	1	25				
123478-HxCDF	99	97	72-134	2	25				
123678-HxCDF	98	97	84-130	1	25				
123789-HxCDF	98	97	78-130	0	25				
234678-HxCDF	98	97	70-156	1	25				
1234678-HpCDF	97	97	82-122	0	25				
1234789-HpCDF	99	97	78-138	2	25				
OCDF	98	97	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: 10b Dioxin/Furan by EPA 1613B

Batch number: 10330001

13C12-2378-TCDD 13C12-1278-TCDD
(CRS)

6143359	63	76
Blank	68	92
OPR	64	79

Limits: 25-164 35-197

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

Batch number: 10333001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6143357	68	77	75	76	75	76
6143358	77	79	76	76	77	79
Blank	65	89	70	70	71	67
MS	66	69	68	70	68	66
MSD	70	78	77	76	76	76

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 02:57 PM

Group Number: 1221706

Surrogate Quality Control

OPR	66	67	65	65	65	65
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
6143357	77	70	65	79	76	77
6143358	78	72	63	86	80	81
Blank	72	63	51	76	92	73
MS	71	66	63	76	70	70
MSD	76	73	65	82	77	78
OPR	66	61	52	73	67	67
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
6143357	79	77	77	71	69	74
6143358	79	80	79	73	76	78
Blank	69	71	69	56	64	85
MS	71	69	72	66	64	68
MSD	79	78	79	72	71	74
OPR	69	68	67	62	63	65
Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name: 10b Dioxin/Furan by EPA 1613B						
Batch number: 10341001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6143359		65	67	69	67	65
RE						
Blank	28	63	63	64	64	62
OPR	28	69	69	70	70	69
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
6143359	64	60	52		51	66
RE						
Blank	59	55	47	34*	51	63
OPR	66	61	52	35	54	68
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
6143359	70	63	65	57	60	63
RE						
Blank	65	61	59	51	58	60
OPR	71	65	65	56	67	68
Limits:	28-130	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.

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 02:57 PM

Group Number: 1221706

Surrogate Quality Control

*- Outside of specification

** - This limit was used in 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 #1221706 Sample #6143357-59

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	Other Instructions and Notes
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers												
SL-083-SA5C-SB-2.5-3.5	11.16.10	1335	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X		
SL-083-SA5C-SB-3.5	11.16.10	1333	soil	none	4 - Encore samplers	X	X										
SL-085-SA5C-SB-3.0	11.16.10	1458	soil	none	4 - Encore samplers	X	X										
SL-085-SA5C-SB-2.5-3.0	11.16.10	1503	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X	X	
TB-111610	11.16.10	1530	water	HCl	3 - 40 ml VOA vials	X	X										Trip blank
EB08-SA5C-111610	11.16.10	1235	water	none	6 - 1 Liter amber glass			X				X	X				plus 2 extra amber bottles
EB08-SA5C-111610	11.16.10	1235	water	none	1 - 500 mL poly bottle					X	X			X			
EB08-SA5C-111610	11.16.10	1235	water	HNO ₃	1 - 500 mL poly bottle				X								
EB08-SA5C-111610	11.16.10	1235	water	HCl	3 - 40 ml VOA vials	X	X										
AB 11/16/10																	
[Diagonal line across remaining empty rows]																	
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Date/Time		Laboratory:									
[Signature]		11.16.10 1530		[Signature]		11/16/10 915		Lancaster Laboratories, Inc.									
Received by: (Signature)		Date/Time		Airbill No. 00732992													
				Tracking Number 869514313264													

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.

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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

February 01, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/20/2010
Group Number: 1222295
SDG: DX009
PO Number: 1203-004-007-AL
Release Number: TRACKING #11667
State of Sample Origin: CA

Client Sample Description

SL-051-SA5C-SB-3.0-4.0 Soil
SL-052-SA5C-SB-2.5-3.0 Soil
SL-042-SA5C-SS-0.0-0.5 Soil

Lancaster Labs (LLI) #

6147147
6147148
6147149

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,



Charles J. Neslund
Manager



Analysis Report

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Page 1 of 4

Sample Description: SL-051-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SB-3.0-4.0

LLI Sample # SW 6147147
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 11:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL51 SDG#: DX009-15

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	28a 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-051-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SB-3.0-4.0

LLI Sample # SW 6147147
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 11:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL51 SDG#: DX009-15

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	0.0457 U	0.0457	1.11	1
11031	12378-PeCDD	40321-76-4	0.0380 U	0.0380	5.57	1
11031	123478-HxCDD	39227-28-6	0.0249 U	0.0249	5.57	1
11031	123678-HxCDD	57653-85-7	0.0250 U	0.0250	5.57	1
11031	123789-HxCDD	19408-74-3	0.0457 JQ	0.0233	5.57	1
11031	1234678-HpCDD	35822-46-9	0.540 J	0.0407	5.57	1
11031	OCDD	3268-87-9	1.14 JQ	0.0358	11.1	1
11031	2378-TCDF	51207-31-9	0.0382 U	0.0382	1.11	1
11031	12378-PeCDF	57117-41-6	0.0456 J	0.0311	5.57	1
11031	23478-PeCDF	57117-31-4	0.225 J	0.0290	5.57	1
11031	123478-HxCDF	70648-26-9	0.298 JQ	0.0391	5.57	1
11031	123678-HxCDF	57117-44-9	0.209 J	0.0382	5.57	1
11031	123789-HxCDF	72918-21-9	0.136 JQ	0.0439	5.57	1
11031	234678-HxCDF	60851-34-5	0.423 J	0.0376	5.57	1
11031	1234678-HpCDF	67562-39-4	1.63 J	0.0260	5.57	1
11031	1234789-HpCDF	55673-89-7	0.168 JQ	0.0328	5.57	1
11031	OCDF	39001-02-0	0.745 J	0.0486	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	57	25 - 181
13C12-123478-HxCDD	60	32 - 141
13C12-123678-HxCDD	60	28 - 130
13C12-123789-HxCDD	61	28 - 130
13C12-1234678-HpCDD	55	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	57	24 - 169
13C12-12378-PeCDF	56	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	57	26 - 152
13C12-123678-HxCDF	58	26 - 123
13C12-234678-HxCDF	59	28 - 136
13C12-123789-HxCDF	60	29 - 147
13C12-1234678-HpCDF	54	28 - 143
13C12-1234789-HpCDF	53	26 - 138
13C12-OCDF	46	17 - 157
13C12-1278-TCDD (CRS)	68	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

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Page 3 of 4

Sample Description: SL-051-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SB-3.0-4.0

LLI Sample # SW 6147147
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 11:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL51 SDG#: DX009-15

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

Sample Description: SL-051-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-051-SA5C-SB-3.0-4.0

LLI Sample # SW 6147147
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 11:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL51 SDG#: DX009-15

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	10333001	12/05/2010 03:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-052-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SB-2.5-3.0

LLI Sample # SW 6147148
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 10:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL52 SDG#: DX009-16

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Moisture Content by 160.3	n.a.	8.7	0.50	0.50	1

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

Sample Description: SL-052-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SB-2.5-3.0

LLI Sample # SW 6147148
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 10:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL52 SDG#: DX009-16

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	0.0358 U	0.0358	1.10	1
11031	12378-PeCDD	40321-76-4	0.0468 JQ	0.0342	5.48	1
11031	123478-HxCDD	39227-28-6	0.0461 JQ	0.0267	5.48	1
11031	123678-HxCDD	57653-85-7	0.0602 JQ	0.0266	5.48	1
11031	123789-HxCDD	19408-74-3	0.0486 JQ	0.0279	5.48	1
11031	1234678-HpCDD	35822-46-9	0.453 J	0.0472	5.48	1
11031	OCDD	3268-87-9	0.982 J	0.0513	11.0	1
11031	2378-TCDF	51207-31-9	0.0646 JQ	0.0347	1.10	1
11031	12378-PeCDF	57117-41-6	0.155 JQ	0.0268	5.48	1
11031	23478-PeCDF	57117-31-4	0.270 JQ	0.0244	5.48	1
11031	123478-HxCDF	70648-26-9	0.285 J	0.0398	5.48	1
11031	123678-HxCDF	57117-44-9	0.199 JQ	0.0405	5.48	1
11031	123789-HxCDF	72918-21-9	0.145 JQ	0.0503	5.48	1
11031	234678-HxCDF	60851-34-5	0.445 J	0.0407	5.48	1
11031	1234678-HpCDF	67562-39-4	1.78 J	0.0289	5.48	1
11031	1234789-HpCDF	55673-89-7	0.266 J	0.0375	5.48	1
11031	OCDF	39001-02-0	0.810 J	0.0490	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	71	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	67	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	53	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-052-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SB-2.5-3.0

LLI Sample # SW 6147148
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 10:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL52 SDG#: DX009-16

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-052-SA5C-SB-2.5-3.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-052-SA5C-SB-2.5-3.0

LLI Sample # SW 6147148
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 10:45

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL52 SDG#: DX009-16

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	10333001	12/05/2010 04:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	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-042-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-042-SA5C-SS-0.0-0.5

LLI Sample # SW 6147149
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 14:30

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL42 SDG#: DX009-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-042-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-042-SA5C-SS-0.0-0.5

LLI Sample # SW 6147149
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 14:30

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL42 SDG#: DX009-17*

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	0.220 JQ	0.111	1.04	1
11031	12378-PeCDD	40321-76-4	0.751 J	0.141	5.22	1
11031	123478-HxCDD	39227-28-6	1.49 J	0.212	5.22	1
11031	123678-HxCDD	57653-85-7	4.60 J	0.212	5.22	1
11031	123789-HxCDD	19408-74-3	2.70 J	0.212	5.22	1
11031	1234678-HpCDD	35822-46-9	124	0.281	5.22	1
11031	OCDD	3268-87-9	1,610	0.498	10.4	1
11031	2378-TCDF	51207-31-9	1.53 Q	0.280	1.04	1
11031	12378-PeCDF	57117-41-6	0.677 J	0.176	5.22	1
11031	23478-PeCDF	57117-31-4	2.70 J	0.159	5.22	1
11031	123478-HxCDF	70648-26-9	1.79 J	0.165	5.22	1
11031	123678-HxCDF	57117-44-9	1.42 J	0.164	5.22	1
11031	123789-HxCDF	72918-21-9	0.794 J	0.186	5.22	1
11031	234678-HxCDF	60851-34-5	2.08 J	0.151	5.22	1
11031	1234678-HpCDF	67562-39-4	19.1	0.127	5.22	1
11031	1234789-HpCDF	55673-89-7	1.81 J	0.177	5.22	1
11031	OCDF	39001-02-0	37.3	0.288	10.4	1

The recoveries for several of the labeled compounds were outside QC limits in this sample. The sample was re-extracted outside of the client specified holding time. The re-extracted sample had recoveries for the labeled compounds that were within QC limits. Relatively comparable data was observed between the two extractions.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	26	25 - 164
13C12-12378-PeCDD	24	25 - 181
13C12-123478-HxCDD	25	32 - 141
13C12-123678-HxCDD	25	28 - 130
13C12-123789-HxCDD	26	28 - 130
13C12-1234678-HpCDD	23	23 - 140
13C12-OCDD	16	17 - 157
13C12-2378-TCDF	25	24 - 169
13C12-12378-PeCDF	24	24 - 185
13C12-23478-PeCDF	24	21 - 178
13C12-123478-HxCDF	25	26 - 152
13C12-123678-HxCDF	24	26 - 123
13C12-234678-HxCDF	25	28 - 136
13C12-123789-HxCDF	24	29 - 147
13C12-1234678-HpCDF	21	28 - 143
13C12-1234789-HpCDF	17	26 - 138
13C12-OCDF	11	17 - 157
13C12-1278-TCDD (CRS)	70	35 - 197

Dioxins/Furans Data Qualifiers:

B Detected in Method Blank

U Undetected

J Estimated concentration between Estimated Detection Limit and Minimum Level

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

Sample Description: SL-042-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-042-SA5C-SS-0.0-0.5

LLI Sample # SW 6147149
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 14:30

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

Submitted: 11/20/2010 09:15

Reported: 02/01/2011 17:29

BSL42 SDG#: DX009-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
E	Exceeds calibration range					
C	Confirmed quantitation on secondary GC column					
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
S	Saturation of detection signal					

Sample Description: SL-042-SA5C-SS-0.0-0.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-042-SA5C-SS-0.0-0.5

LLI Sample # SW 6147149
LLI Group # 1222295
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/19/2010 14:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/20/2010 09:15

Suite 210

Reported: 02/01/2011 17:29

Chantilly VA 20151

BSL42 SDG#: DX009-17*

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	10333001	12/05/2010 05:40	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	11007001	01/07/2011 13:00	Ginelle L Haines	1
11625	28a Moisture Content by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 02/01/11 at 05:29 PM

Group Number: 1222295

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10334162401A 28a Moisture Content by 160.3	Sample number(s): 6147147, 6147149				100		80-120		
Batch number: 10342162401A 28a Moisture Content by 160.3	Sample number(s): 6147148				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10333001	Sample number(s): 6147147-6147149								
2378-TCDD	0.0175 U	0.0175	1.00	ng/kg	100		67-158		
12378-PeCDD	0.0166 U	0.0166	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0575 J	0.0177	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0869 J	0.0180	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0795 J	0.0176	5.00	ng/kg	95		64-162		
1234678-HpCDD	0.459 J	0.0207	5.00	ng/kg	97		70-140		
OCDD	0.823 J	0.0270	10.0	ng/kg	96		78-144		
2378-TCDF	0.0202 U	0.0202	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0918 J	0.0145	5.00	ng/kg	97		80-134		
23478-PeCDF	0.205 J	0.0125	5.00	ng/kg	96		68-160		
123478-HxCDF	0.266 J	0.0219	5.00	ng/kg	98		72-134		
123678-HxCDF	0.216 J	0.0206	5.00	ng/kg	97		84-130		
123789-HxCDF	0.192 J	0.0246	5.00	ng/kg	97		78-130		
234678-HxCDF	0.381 J	0.0208	5.00	ng/kg	98		70-156		
1234678-HpCDF	1.58 J	0.0132	5.00	ng/kg	100		82-122		
1234789-HpCDF	0.190 J	0.0166	5.00	ng/kg	98		78-138		
OCDF	0.760 J	0.0240	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10334162401A 28a Moisture Content by 160.3	Sample number(s): 6147147, 6147149					BKG: P149366 4.3	4.1	4	20
Batch number: 10342162401A 28a Moisture Content by 160.3	Sample number(s): 6147148					BKG: P149363 10	9.8	2	20
Batch number: 10333001 2378-TCDD	Sample number(s): 6147147-6147149					UNSPK: P144637 97			
		99	67-158	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: 02/01/11 at 05:29 PM

Group Number: 1222295

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
12378-PeCDD	97	99	70-142	2	25				
123478-HxCDD	99	97	70-164	2	25				
123678-HxCDD	97	96	76-134	1	25				
123789-HxCDD	98	97	64-162	0	25				
1234678-HpCDD	97	96	70-140	1	25				
OCDD	98	96	78-144	2	25				
2378-TCDF	100	101	75-158	1	25				
12378-PeCDF	98	97	80-134	1	25				
23478-PeCDF	97	96	68-160	1	25				
123478-HxCDF	99	97	72-134	2	25				
123678-HxCDF	98	97	84-130	1	25				
123789-HxCDF	98	97	78-130	0	25				
234678-HxCDF	98	97	70-156	1	25				
1234678-HpCDF	97	97	82-122	0	25				
1234789-HpCDF	99	97	78-138	2	25				
OCDF	98	97	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: 10333001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6147147	60	57	57	58	59	60
6147148	68	69	72	72	70	70
6147149	26	24	25*	24*	25*	24*
Blank	65	89	70	70	71	67
MS	66	69	68	70	68	66
MSD	70	78	77	76	76	76
OPR	66	67	65	65	65	65
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
6147147	54	53	46	68	57	60
6147148	66	62	53	76	70	71
6147149	21*	17*	11*	70	24*	25*
Blank	72	63	51	76	92	73
MS	71	66	63	76	70	70
MSD	76	73	65	82	77	78
OPR	66	61	52	73	67	67
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

*- Outside of specification

** - This limit was used in 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: 02/01/11 at 05:29 PM

Group Number: 1222295

Surrogate Quality Control

6147147	60	61	55	49	57	56
6147148	73	72	66	55	67	69
6147149	25*	26*	23	16*	25	24
Blank	69	71	69	56	64	85
MS	71	69	72	66	64	68
MSD	79	78	79	72	71	74
OPR	69	68	67	62	63	65
Limits:	28-130	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# 1222295 sample# 6147147-49

CHAIN OF CUSTODY RECORD

[illegible]

869514314640

This sample ID was updated on 11/22/10 per PB.
NUM 11/22/10

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/19/2010

Group Number: 1222093

SDG: DX009

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample DescriptionSL-067-SA5C-SB-3.0-4.0 Soil
SL-054-SA5C-SB-3.0-4.0 Soil
SL-068-SA5C-SB-3.5-4.5 SoilLancaster Labs (LLI) #6145772
6145773
6145774

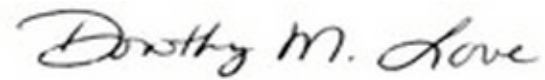
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-067-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SB-3.0-4.0

LLI Sample # SW 6145772
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 10:58

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6734 SDG#: DX009-12

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	6.5	0.50	0.50	1

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

Sample Description: SL-067-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SB-3.0-4.0

LLI Sample # SW 6145772
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 10:58

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6734 SDG#: DX009-12

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	0.0841 J	0.0477	1.07	1
11031	12378-PeCDD	40321-76-4	0.319 J	0.0616	5.35	1
11031	123478-HxCDD	39227-28-6	0.307 JQ	0.0693	5.35	1
11031	123678-HxCDD	57653-85-7	1.17 J	0.0707	5.35	1
11031	123789-HxCDD	19408-74-3	0.869 J	0.0705	5.35	1
11031	1234678-HpCDD	35822-46-9	22.9	0.0667	5.35	1
11031	OCDD	3268-87-9	175	0.0679	10.7	1
11031	2378-TCDF	51207-31-9	0.647 JQ	0.110	1.07	1
11031	12378-PeCDF	57117-41-6	0.596 JQ	0.0548	5.35	1
11031	23478-PeCDF	57117-31-4	1.40 J	0.0490	5.35	1
11031	123478-HxCDF	70648-26-9	1.27 J	0.0537	5.35	1
11031	123678-HxCDF	57117-44-9	0.990 J	0.0538	5.35	1
11031	123789-HxCDF	72918-21-9	0.452 J	0.0628	5.35	1
11031	234678-HxCDF	60851-34-5	1.27 J	0.0538	5.35	1
11031	1234678-HpCDF	67562-39-4	6.04	0.0348	5.35	1
11031	1234789-HpCDF	55673-89-7	0.611 JQ	0.0420	5.35	1
11031	OCDF	39001-02-0	5.33 J	0.0314	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	68	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	68	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	68	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	62	17 - 157
13C12-1278-TCDD (CRS)	71	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

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Page 3 of 4

Sample Description: SL-067-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SB-3.0-4.0

LLI Sample # SW 6145772
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 10:58

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6734 SDG#: DX009-12

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

Sample Description: SL-067-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-067-SA5C-SB-3.0-4.0

LLI Sample # SW 6145772
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 10:58

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/19/2010 08:55

Suite 210

Reported: 12/30/2010 15:01

Chantilly VA 20151

D6734 SDG#: DX009-12

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	10333001	12/04/2010 21:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-054-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SB-3.0-4.0

LLI Sample # SW 6145773
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 14:59

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D5434 SDG#: DX009-13

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	28a Total Solids by 160.3	n.a.	11.3	0.50	0.50	1

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

Sample Description: SL-054-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SB-3.0-4.0

LLI Sample # SW 6145773
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 14:59

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D5434 SDG#: DX009-13

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	0.0361 U	0.0361	1.13	1
11031	12378-PeCDD	40321-76-4	0.0402 U	0.0402	5.64	1
11031	123478-HxCDD	39227-28-6	0.0440 JQ	0.0369	5.64	1
11031	123678-HxCDD	57653-85-7	0.0608 JQ	0.0379	5.64	1
11031	123789-HxCDD	19408-74-3	0.0984 J	0.0362	5.64	1
11031	1234678-HpCDD	35822-46-9	0.541 JQ	0.0481	5.64	1
11031	OCDD	3268-87-9	0.892 JQ	0.0404	11.3	1
11031	2378-TCDF	51207-31-9	0.0363 U	0.0363	1.13	1
11031	12378-PeCDF	57117-41-6	0.0656 JQ	0.0242	5.64	1
11031	23478-PeCDF	57117-31-4	0.223 JQ	0.0220	5.64	1
11031	123478-HxCDF	70648-26-9	0.289 J	0.0426	5.64	1
11031	123678-HxCDF	57117-44-9	0.218 JQ	0.0414	5.64	1
11031	123789-HxCDF	72918-21-9	0.112 JQ	0.0480	5.64	1
11031	234678-HxCDF	60851-34-5	0.430 JQ	0.0426	5.64	1
11031	1234678-HpCDF	67562-39-4	1.76 J	0.0223	5.64	1
11031	1234789-HpCDF	55673-89-7	0.139 J	0.0289	5.64	1
11031	OCDF	39001-02-0	0.836 J	0.0435	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	65	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	63	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	66	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	57	17 - 157
13C12-1278-TCDD (CRS)	72	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-054-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SB-3.0-4.0

LLI Sample # SW 6145773
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 14:59

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D5434 SDG#: DX009-13

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

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Page 4 of 4

Sample Description: SL-054-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-054-SA5C-SB-3.0-4.0

LLI Sample # SW 6145773
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 14:59

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D5434 SDG#: DX009-13

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	10333001	12/04/2010 22:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-068-SA5C-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SB-3.5-4.5

LLI Sample # SW 6145774
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 13:30

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6834 SDG#: DX009-14

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	28a Total Solids 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: SL-068-SA5C-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SB-3.5-4.5

LLI Sample # SW 6145774
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 13:30

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6834 SDG#: DX009-14

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	0.0601 JQ	0.0374	1.08	1
11031	12378-PeCDD	40321-76-4	0.0682 JQ	0.0363	5.41	1
11031	123478-HxCDD	39227-28-6	0.0472 JQ	0.0330	5.41	1
11031	123678-HxCDD	57653-85-7	0.0863 J	0.0324	5.41	1
11031	123789-HxCDD	19408-74-3	0.0645 J	0.0314	5.41	1
11031	1234678-HpCDD	35822-46-9	0.558 J	0.0516	5.41	1
11031	OCDD	3268-87-9	1.09 J	0.0479	10.8	1
11031	2378-TCDF	51207-31-9	0.0319 U	0.0319	1.08	1
11031	12378-PeCDF	57117-41-6	0.0759 J	0.0265	5.41	1
11031	23478-PeCDF	57117-31-4	0.252 JQ	0.0254	5.41	1
11031	123478-HxCDF	70648-26-9	0.285 J	0.0444	5.41	1
11031	123678-HxCDF	57117-44-9	0.257 J	0.0417	5.41	1
11031	123789-HxCDF	72918-21-9	0.184 J	0.0412	5.41	1
11031	234678-HxCDF	60851-34-5	0.382 JQ	0.0343	5.41	1
11031	1234678-HpCDF	67562-39-4	1.91 J	0.0338	5.41	1
11031	1234789-HpCDF	55673-89-7	0.172 JQ	0.0397	5.41	1
11031	OCDF	39001-02-0	0.869 J	0.0556	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	59	25 - 181
13C12-123478-HxCDD	58	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	64	28 - 130
13C12-1234678-HpCDD	60	23 - 140
13C12-OCDD	52	17 - 157
13C12-2378-TCDF	58	24 - 169
13C12-12378-PeCDF	57	24 - 185
13C12-23478-PeCDF	57	21 - 178
13C12-123478-HxCDF	49	26 - 152
13C12-123678-HxCDF	54	26 - 123
13C12-234678-HxCDF	63	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	53	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	68	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-068-SA5C-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SB-3.5-4.5

LLI Sample # SW 6145774
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 13:30

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

Submitted: 11/19/2010 08:55

Reported: 12/30/2010 15:01

D6834 SDG#: DX009-14

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-068-SA5C-SB-3.5-4.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-068-SA5C-SB-3.5-4.5

LLI Sample # SW 6145774
LLI Group # 1222093
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/18/2010 13:30

CDM Federal Programs Corp.

14420 Albemarle Point Place

Submitted: 11/19/2010 08:55

Suite 210

Reported: 12/30/2010 15:01

Chantilly VA 20151

D6834 SDG#: DX009-14

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	10333001	12/05/2010 02:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 03:01 PM

Group Number: 1222093

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: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6145772-6145774				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: 10333001	Sample number(s): 6145772-6145774								
2378-TCDD	0.0175 U	0.0175	1.00	ng/kg	100		67-158		
12378-PeCDD	0.0166 U	0.0166	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0575 J	0.0177	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0869 J	0.0180	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0795 J	0.0176	5.00	ng/kg	95		64-162		
1234678-HpCDD	0.459 J	0.0207	5.00	ng/kg	97		70-140		
OCDD	0.823 J	0.0270	10.0	ng/kg	96		78-144		
2378-TCDF	0.0202 U	0.0202	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0918 J	0.0145	5.00	ng/kg	97		80-134		
23478-PeCDF	0.205 J	0.0125	5.00	ng/kg	96		68-160		
123478-HxCDF	0.266 J	0.0219	5.00	ng/kg	98		72-134		
123678-HxCDF	0.216 J	0.0206	5.00	ng/kg	97		84-130		
123789-HxCDF	0.192 J	0.0246	5.00	ng/kg	97		78-130		
234678-HxCDF	0.381 J	0.0208	5.00	ng/kg	98		70-156		
1234678-HpCDF	1.58 J	0.0132	5.00	ng/kg	100		82-122		
1234789-HpCDF	0.190 J	0.0166	5.00	ng/kg	98		78-138		
OCDF	0.760 J	0.0240	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: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6145772-6145774					BKG: P149363 10	9.8	2	20
Batch number: 10333001	Sample number(s): 6145772-6145774					UNSPK: P144637			
2378-TCDD	97	99	67-158	2	25				
12378-PeCDD	97	99	70-142	2	25				
123478-HxCDD	99	97	70-164	2	25				
123678-HxCDD	97	96	76-134	1	25				
123789-HxCDD	98	97	64-162	0	25				
1234678-HpCDD	97	96	70-140	1	25				
OCDD	98	96	78-144	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: 12/30/10 at 03:01 PM

Group Number: 1222093

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
2378-TCDF	100	101	75-158	1	25				
12378-PeCDF	98	97	80-134	1	25				
23478-PeCDF	97	96	68-160	1	25				
123478-HxCDF	99	97	72-134	2	25				
123678-HxCDF	98	97	84-130	1	25				
123789-HxCDF	98	97	78-130	0	25				
234678-HxCDF	98	97	70-156	1	25				
1234678-HpCDF	97	97	82-122	0	25				
1234789-HpCDF	99	97	78-138	2	25				
OCDF	98	97	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: 10333001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6145772	64	68	67	67	65	67
6145773	60	64	67	68	67	68
6145774	59	57	49	54	63	64
Blank	65	89	70	70	71	67
MS	66	69	68	70	68	66
MSD	70	78	77	76	76	76
OPR	66	67	65	65	65	65
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
6145772	66	65	62	71	68	69
6145773	66	63	57	72	65	68
6145774	53	56	48	68	59	58
Blank	72	63	51	76	92	73
MS	71	66	63	76	70	70
MSD	76	73	65	82	77	78
OPR	66	61	52	73	67	67
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
6145772	67	68	68	66	63	66
6145773	70	70	67	61	58	63
6145774	61	64	60	52	58	57
Blank	69	71	69	56	64	85
MS	71	69	72	66	64	68

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 03:01 PM

Group Number: 1222093

Surrogate Quality Control

MSD	79	78	79	72	71	74
OPR	69	68	67	62	63	65
Limits:	28-130	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.

6145772-74

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																	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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-EFH EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C		**Alcohol/Glycols EPA 8015B	**Terphenyls EPA 8015B
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																				
Samplers: (Signature) <i>Barry Blum for Pam Hartman</i>																									
SL-067-SA5C-SB-3.0-4.0	11.18.10	1058	soil	none	2 x 16 oz jars			X	X	X	X	X	X	X											
SL-067-SA5C-SB-3.0-4.0	11.18.10	1058	soil	none	1 x 16 oz jar										X	X		X	X	X	X		X		
SL-067-SA5C-SB-3.0-4.0	11.18.10	1058	soil	none	3 x 4 oz jar			X														X			
SL-067-SA5C-SB-3.0-4.0	11.18.10	1058	soil	none	1 x 4 oz amber jar												X								
SL-054-SA5C-SB-3.0-4.0	11.18.10	1459	soil	none	2 x 16 oz jars			X	X	X	X	X	X	X											
SL-054-SA5C-SB-3.0-4.0	11.18.10	1459	soil	none	1 x 16 oz jar										X	X		X	X	X	X		X		
SL-054-SA5C-SB-3.0-4.0	11.18.10	1459	soil	none	3 x 4 oz jar			X														X			
SL-054-SA5C-SB-3.0-4.0	11.18.10	1459	soil	none	1 x 4 oz amber jar												X								
SL-068-SA5C-SB-3.5-4.5	11.18.10	1330	soil	none	2 x 16 oz jars			X	X	X	X	X	X	X											
SL-068-SA5C-SB-3.5-4.5	11.18.10	1330	soil	none	1 x 16 oz jar										X	X		X	X	X	X		X		
SL-068-SA5C-SB-3.5-4.5	11.18.10	1330	soil	none	3 x 4 oz jar			X														X			
SL-068-SA5C-SB-3.5-4.5	11.18.10	1330	soil	none	1 x 4 oz amber jar												X								
Relinquished by: (Signature) <i>Barry Blum</i>	Date/Time 11.18.10 1630	Received for Laboratory by: (Signature)		Date/Time																			Laboratory: Lancaster Laboratories, Inc.		
Received by: (Signature) <i>H.M.</i>	Date/Time 11/18/10	AirMail No. 00732992		Tracking Number 869514313297																			Cooler 2		

869514313297

13013 1222093

6145772-74

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING																		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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260S/M	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohols EPA 8015B		**Glycols EPA 8015B
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
FB05-SA5C-111810	11.18.10	0830	water	none	1-500 ml poly											X			
FB05-SA5C-111810	11.18.10	0830	water	NaOH & ascorbic acid	1-500 ml poly										X				
EB09-SA5C-111810	11.18.10	1230	water	none	1-500 ml poly											X			
EB09-SA5C-111810	11.18.10	1230	water	NaOH & ascorbic acid	1-500 ml poly										X				
FB05-SA5C-111810	11.18.10	0830	water	none	1-250 ml glass jar						X								
EB09-SA5C-111810	11.18.10	1230	water	none	1-250 ml glass jar						X								
FB05-SA5C-111810	11.18.10	0830	water	acetate buffer	1-40 ml amber vial							X							
EB09-SA5C-111810	11.18.10	1230	water	acetate buffer	1-40 ml amber vial							X							
FB05-SA5C-111810	11.18.10	0830	water	HCl	3-40 ml vials				X										
EB09-SA5C-111810	11.18.10	1230	water	HCl	3-40 ml vials				X										
FB05-SA5C-111810	11.18.10	0830	water	HCl	2-40 ml vials												X		
EB09-SA5C-111810	11.18.10	1230	water	HCl	2-40 ml vials												X		
SL-054-SA5C-SB-4.0	11.18.10	1455	soil	none	5 encore samplers	X	X	X											
SL-067-SA5C-SB-4.0	11.18.10	1050	soil	none	5 encore samplers	X	X	X											
SL-068-SA5C-SB-4.5	11.18.10	1325	soil	none	5 encore samplers	X	X	X											
TB-111810	11.18.10	1630	water	HCl	4-40 ml vials	X	X	X											
Relinquished by: (Signature)		Date/Time		Received for Laboratory by: (Signature)		Date/Time		Laboratory:											
<i>[Signature]</i>		11.18.10 1630		<i>[Signature]</i>				Lancaster Laboratories, Inc.											
Received by: (Signature)		Date/Time		Airbill No.		Tracking Number		Cooler 3											
<i>[Signature]</i>		11/18/10 855		00732992		869514314639													

869514314639

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.



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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/18/2010

Group Number: 1221912

SDG: DX009

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-080-SA5C-SB-4.0-5.0 Soil	6144637
SL-080-SA5C-SB-4.0-5.0MS Soil	6144638
SL-080-SA5C-SB-4.0-5.0MSD Soil	6144639
SL-080-SA5C-SB-7.5-8.5 Soil	6144640
SL-079-SA5C-SB-4.0-5.0 Soil	6144641
SL-079-SA5C-SB-8.5-9.5 Soil	6144642
DUP08-SA5C-QC-111710 Soil	6144643
SL-081-SA5C-SB-3.0-4.0 Soil	6144644
SL-072-SA5C-SB-4.0-5.0 Soil	6144645
SL-072-SA5C-SB-7.5-8.5 Soil	6144646

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

ELECTRONIC CDM Federal Services Program

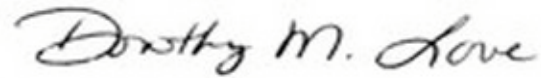
COPY TO

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,



Dorothy M. Love
Group Leader



Analysis Report

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Page 1 of 4

Sample Description: SL-080-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144637
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04BKG

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	28a Total Solids by 160.3	n.a.	9.5	0.50	0.50	1

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

Sample Description: SL-080-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144637
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04BKG

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	0.0299 U	0.0299	1.10	1
11031	12378-PeCDD	40321-76-4	0.0303 U	0.0303	5.52	1
11031	123478-HxCDD	39227-28-6	0.0331 JQ	0.0255	5.52	1
11031	123678-HxCDD	57653-85-7	0.0647 J	0.0260	5.52	1
11031	123789-HxCDD	19408-74-3	0.0709 JQ	0.0246	5.52	1
11031	1234678-HpCDD	35822-46-9	0.471 JQ	0.0390	5.52	1
11031	OCDD	3268-87-9	1.79 J	0.0358	11.0	1
11031	2378-TCDF	51207-31-9	0.0328 U	0.0328	1.10	1
11031	12378-PeCDF	57117-41-6	0.0604 JQ	0.0215	5.52	1
11031	23478-PeCDF	57117-31-4	0.225 JQ	0.0200	5.52	1
11031	123478-HxCDF	70648-26-9	0.259 J	0.0357	5.52	1
11031	123678-HxCDF	57117-44-9	0.183 JQ	0.0350	5.52	1
11031	123789-HxCDF	72918-21-9	0.164 J	0.0403	5.52	1
11031	234678-HxCDF	60851-34-5	0.447 J	0.0352	5.52	1
11031	1234678-HpCDF	67562-39-4	1.61 J	0.0242	5.52	1
11031	1234789-HpCDF	55673-89-7	0.148 JQ	0.0306	5.52	1
11031	OCDF	39001-02-0	0.804 J	0.0375	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	76	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	69	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	71	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	70	26 - 138
13C12-OCDF	63	17 - 157
13C12-1278-TCDD (CRS)	77	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-080-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144637
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04BKG

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

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Sample Description: SL-080-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144637
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10333001	12/04/2010 08:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-080-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144638
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MS

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	28a Total Solids by 160.3	n.a.	9.5	0.50	0.50	1

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

Sample Description: SL-080-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144638
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MS

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	21.4	0.0873	1.10	1
11031	12378-PeCDD	40321-76-4	107	0.0890	5.52	1
11031	123478-HxCDD	39227-28-6	109	0.0904	5.52	1
11031	123678-HxCDD	57653-85-7	108	0.0924	5.52	1
11031	123789-HxCDD	19408-74-3	108	0.0882	5.52	1
11031	1234678-HpCDD	35822-46-9	107	0.0930	5.52	1
11031	OCDD	3268-87-9	218	0.0983	11.0	1
11031	2378-TCDF	51207-31-9	22.2	0.0786	1.10	1
11031	12378-PeCDF	57117-41-6	108	0.0688	5.52	1
11031	23478-PeCDF	57117-31-4	107	0.0621	5.52	1
11031	123478-HxCDF	70648-26-9	110	0.128	5.52	1
11031	123678-HxCDF	57117-44-9	109	0.127	5.52	1
11031	123789-HxCDF	72918-21-9	108	0.157	5.52	1
11031	234678-HxCDF	60851-34-5	109	0.131	5.52	1
11031	1234678-HpCDF	67562-39-4	109	0.0883	5.52	1
11031	1234789-HpCDF	55673-89-7	110	0.112	5.52	1
11031	OCDF	39001-02-0	216	0.101	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	70	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	66	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	63	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
- Q EMPC - Estimated Maximum Possible Concentration



Analysis Report

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Sample Description: SL-080-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144638
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MS

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

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Sample Description: SL-080-SA5C-SB-4.0-5.0MS Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144638
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10333001	12/04/2010 09:25	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-080-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144639
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 9.5	% 0.50	% 0.50	1

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

Sample Description: SL-080-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144639
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MSD

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	21.8	0.0418	1.10	1
11031	12378-PeCDD	40321-76-4	109	0.0581	5.52	1
11031	123478-HxCDD	39227-28-6	107	0.0517	5.52	1
11031	123678-HxCDD	57653-85-7	107	0.0536	5.52	1
11031	123789-HxCDD	19408-74-3	108	0.0531	5.52	1
11031	1234678-HpCDD	35822-46-9	106	0.0652	5.52	1
11031	OCDD	3268-87-9	213	0.0842	11.0	1
11031	2378-TCDF	51207-31-9	22.3	0.0502	1.10	1
11031	12378-PeCDF	57117-41-6	107	0.0389	5.52	1
11031	23478-PeCDF	57117-31-4	106	0.0358	5.52	1
11031	123478-HxCDF	70648-26-9	107	0.0822	5.52	1
11031	123678-HxCDF	57117-44-9	107	0.0832	5.52	1
11031	123789-HxCDF	72918-21-9	108	0.0931	5.52	1
11031	234678-HxCDF	60851-34-5	108	0.0788	5.52	1
11031	1234678-HpCDF	67562-39-4	109	0.0740	5.52	1
11031	1234789-HpCDF	55673-89-7	107	0.0917	5.52	1
11031	OCDF	39001-02-0	215	0.0810	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	79	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	79	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	77	26 - 152
13C12-123678-HxCDF	76	26 - 123
13C12-234678-HxCDF	76	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	65	17 - 157
13C12-1278-TCDD (CRS)	82	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-080-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144639
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MSD

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

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Page 4 of 4

Sample Description: SL-080-SA5C-SB-4.0-5.0MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-4.0-5.0

LLI Sample # SW 6144639
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8045 SDG#: DX009-04MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10333001	12/04/2010 10:25	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-080-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-7.5-8.5

LLI Sample # SW 6144640
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:13 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8078 SDG#: DX009-05

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	28a Total Solids 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-080-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-7.5-8.5

LLI Sample # SW 6144640
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:13 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8078 SDG#: DX009-05

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	0.0318 U	0.0318	1.09	1
11031	12378-PeCDD	40321-76-4	0.0277 U	0.0277	5.43	1
11031	123478-HxCDD	39227-28-6	0.0442 J	0.0211	5.43	1
11031	123678-HxCDD	57653-85-7	0.0831 JQ	0.0213	5.43	1
11031	123789-HxCDD	19408-74-3	0.0745 JQ	0.0221	5.43	1
11031	1234678-HpCDD	35822-46-9	0.525 JQ	0.0340	5.43	1
11031	OCDD	3268-87-9	1.61 J	0.0277	10.9	1
11031	2378-TCDF	51207-31-9	0.0349 U	0.0349	1.09	1
11031	12378-PeCDF	57117-41-6	0.0688 JQ	0.0217	5.43	1
11031	23478-PeCDF	57117-31-4	0.227 J	0.0193	5.43	1
11031	123478-HxCDF	70648-26-9	0.347 J	0.0325	5.43	1
11031	123678-HxCDF	57117-44-9	0.227 J	0.0326	5.43	1
11031	123789-HxCDF	72918-21-9	0.178 JQ	0.0379	5.43	1
11031	234678-HxCDF	60851-34-5	0.479 JQ	0.0314	5.43	1
11031	1234678-HpCDF	67562-39-4	1.88 J	0.0174	5.43	1
11031	1234789-HpCDF	55673-89-7	0.122 J	0.0229	5.43	1
11031	OCDF	39001-02-0	0.861 J	0.0378	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	64	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	67	26 - 138
13C12-OCDF	58	17 - 157
13C12-1278-TCDD (CRS)	74	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-080-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-7.5-8.5

LLI Sample # SW 6144640
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:13 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8078 SDG#: DX009-05

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

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Page 4 of 4

Sample Description: SL-080-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-080-SA5C-SB-7.5-8.5

LLI Sample # SW 6144640
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:13 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8078 SDG#: DX009-05

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	10333001	12/04/2010 11:25	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-079-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-4.0-5.0

LLI Sample # SW 6144641
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:04 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7945 SDG#: DX009-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 6.6	% 0.50	% 0.50	1

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

Sample Description: SL-079-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-4.0-5.0

LLI Sample # SW 6144641
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:04 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7945 SDG#: DX009-06

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	0.0321 U	0.0321	1.07	1
11031	12378-PeCDD	40321-76-4	0.0380 JQ	0.0335	5.35	1
11031	123478-HxCDD	39227-28-6	0.0622 J	0.0261	5.35	1
11031	123678-HxCDD	57653-85-7	0.0604 JQ	0.0260	5.35	1
11031	123789-HxCDD	19408-74-3	0.0821 J	0.0267	5.35	1
11031	1234678-HpCDD	35822-46-9	0.977 J	0.0419	5.35	1
11031	OCDD	3268-87-9	7.45 J	0.0364	10.7	1
11031	2378-TCDF	51207-31-9	0.0346 U	0.0346	1.07	1
11031	12378-PeCDF	57117-41-6	0.0661 JQ	0.0227	5.35	1
11031	23478-PeCDF	57117-31-4	0.191 J	0.0197	5.35	1
11031	123478-HxCDF	70648-26-9	0.302 JQ	0.0354	5.35	1
11031	123678-HxCDF	57117-44-9	0.174 J	0.0354	5.35	1
11031	123789-HxCDF	72918-21-9	0.110 JQ	0.0398	5.35	1
11031	234678-HxCDF	60851-34-5	0.388 J	0.0339	5.35	1
11031	1234678-HpCDF	67562-39-4	1.58 J	0.0273	5.35	1
11031	1234789-HpCDF	55673-89-7	0.133 JQ	0.0346	5.35	1
11031	OCDF	39001-02-0	0.822 J	0.0366	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	60	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	67	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	60	24 - 169
13C12-12378-PeCDF	64	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	61	17 - 157
13C12-1278-TCDD (CRS)	69	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-079-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-4.0-5.0

LLI Sample # SW 6144641
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:04 by PH

CDM Federal Programs Corp.
14420 Albemarle Point Place
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Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7945 SDG#: DX009-06

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-079-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-4.0-5.0

LLI Sample # SW 6144641
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:04 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7945 SDG#: DX009-06

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	10333001	12/04/2010 15:34	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-079-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-8.5-9.5

LLI Sample # SW 6144642
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7989 SDG#: DX009-07

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	28a Total Solids 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-079-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-8.5-9.5

LLI Sample # SW 6144642
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7989 SDG#: DX009-07

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	0.0286 JQ	0.0253	1.11	1
11031	12378-PeCDD	40321-76-4	0.0574 JQ	0.0225	5.56	1
11031	123478-HxCDD	39227-28-6	0.0741 JQ	0.0199	5.56	1
11031	123678-HxCDD	57653-85-7	0.124 J	0.0202	5.56	1
11031	123789-HxCDD	19408-74-3	0.0891 JQ	0.0198	5.56	1
11031	1234678-HpCDD	35822-46-9	0.847 J	0.0354	5.56	1
11031	OCDD	3268-87-9	5.08 J	0.0263	11.1	1
11031	2378-TCDF	51207-31-9	0.0372 JQ	0.0287	1.11	1
11031	12378-PeCDF	57117-41-6	0.111 JQ	0.0180	5.56	1
11031	23478-PeCDF	57117-31-4	0.243 J	0.0167	5.56	1
11031	123478-HxCDF	70648-26-9	0.325 JQ	0.0303	5.56	1
11031	123678-HxCDF	57117-44-9	0.232 J	0.0301	5.56	1
11031	123789-HxCDF	72918-21-9	0.139 JQ	0.0329	5.56	1
11031	234678-HxCDF	60851-34-5	0.389 JQ	0.0284	5.56	1
11031	1234678-HpCDF	67562-39-4	1.71 J	0.0186	5.56	1
11031	1234789-HpCDF	55673-89-7	0.201 JQ	0.0235	5.56	1
11031	OCDF	39001-02-0	0.913 J	0.0285	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	75	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	78	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	77	23 - 140
13C12-OCDD	73	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	72	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	75	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	77	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	73	26 - 138
13C12-OCDF	68	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-079-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-8.5-9.5

LLI Sample # SW 6144642
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7989 SDG#: DX009-07

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

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Page 4 of 4

Sample Description: SL-079-SA5C-SB-8.5-9.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-079-SA5C-SB-8.5-9.5

LLI Sample # SW 6144642
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 12:10 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7989 SDG#: DX009-07

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	10333001	12/04/2010 16:34	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: DUP08-SA5C-QC-111710 Soil
SSFL Area IV Collocated Soil Sampling
DUP08-SA5C-QC-111710

LLI Sample # SW 6144643
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:15 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

DDP08 SDG#: DX009-08FD

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	28a Total Solids 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: DUP08-SA5C-QC-111710 Soil
SSFL Area IV Collocated Soil Sampling
DUP08-SA5C-QC-111710

LLI Sample # SW 6144643
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:15 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

DDP08 SDG#: DX009-08FD

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	0.0417 JQ	0.0233	1.09	1
11031	12378-PeCDD	40321-76-4	0.0850 JQ	0.0269	5.43	1
11031	123478-HxCDD	39227-28-6	0.0770 JQ	0.0219	5.43	1
11031	123678-HxCDD	57653-85-7	0.0445 JQ	0.0220	5.43	1
11031	123789-HxCDD	19408-74-3	0.0761 JQ	0.0221	5.43	1
11031	1234678-HpCDD	35822-46-9	0.597 JQ	0.0354	5.43	1
11031	OCDD	3268-87-9	1.48 J	0.0269	10.9	1
11031	2378-TCDF	51207-31-9	0.0408 JQ	0.0296	1.09	1
11031	12378-PeCDF	57117-41-6	0.133 JQ	0.0194	5.43	1
11031	23478-PeCDF	57117-31-4	0.266 J	0.0180	5.43	1
11031	123478-HxCDF	70648-26-9	0.318 JQ	0.0352	5.43	1
11031	123678-HxCDF	57117-44-9	0.275 J	0.0343	5.43	1
11031	123789-HxCDF	72918-21-9	0.116 JQ	0.0415	5.43	1
11031	234678-HxCDF	60851-34-5	0.454 J	0.0340	5.43	1
11031	1234678-HpCDF	67562-39-4	1.94 J	0.0187	5.43	1
11031	1234789-HpCDF	55673-89-7	0.154 JQ	0.0266	5.43	1
11031	OCDF	39001-02-0	0.946 J	0.0418	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	51	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

Sample Description: DUP08-SA5C-QC-111710 Soil
SSFL Area IV Collocated Soil Sampling
DUP08-SA5C-QC-111710

LLI Sample # SW 6144643
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:15 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

DDP08 SDG#: DX009-08FD

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: DUP08-SA5C-QC-111710 Soil
SSFL Area IV Collocated Soil Sampling
DUP08-SA5C-QC-111710

LLI Sample # SW 6144643
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 10:15 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

DDP08 SDG#: DX009-08FD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10333001	12/04/2010 17:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1



Analysis Report

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Sample Description: SL-081-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-081-SA5C-SB-3.0-4.0

LLI Sample # SW 6144644
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 13:56 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8134 SDG#: DX009-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 5.9	% 0.50	% 0.50	1

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

Sample Description: SL-081-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-081-SA5C-SB-3.0-4.0

LLI Sample # SW 6144644
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 13:56 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8134 SDG#: DX009-09

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	0.0231 U	0.0231	1.06	1
11031	12378-PeCDD	40321-76-4	0.265 J	0.0290	5.31	1
11031	123478-HxCDD	39227-28-6	0.143 J	0.0237	5.31	1
11031	123678-HxCDD	57653-85-7	0.126 JQ	0.0245	5.31	1
11031	123789-HxCDD	19408-74-3	0.152 J	0.0242	5.31	1
11031	1234678-HpCDD	35822-46-9	0.471 JQ	0.0271	5.31	1
11031	OCDD	3268-87-9	0.785 J	0.0271	10.6	1
11031	2378-TCDF	51207-31-9	0.0824 J	0.0241	1.06	1
11031	12378-PeCDF	57117-41-6	0.373 J	0.0181	5.31	1
11031	23478-PeCDF	57117-31-4	0.369 J	0.0163	5.31	1
11031	123478-HxCDF	70648-26-9	0.373 JQ	0.0285	5.31	1
11031	123678-HxCDF	57117-44-9	0.309 J	0.0290	5.31	1
11031	123789-HxCDF	72918-21-9	0.201 JQ	0.0334	5.31	1
11031	234678-HxCDF	60851-34-5	0.376 JQ	0.0288	5.31	1
11031	1234678-HpCDF	67562-39-4	1.33 J	0.0163	5.31	1
11031	1234789-HpCDF	55673-89-7	0.212 J	0.0220	5.31	1
11031	OCDF	39001-02-0	0.642 J	0.0319	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	75	28 - 130
13C12-1234678-HpCDD	75	23 - 140
13C12-OCDD	70	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	73	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	60	17 - 157
13C12-1278-TCDD (CRS)	80	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

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Page 3 of 4

Sample Description: SL-081-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-081-SA5C-SB-3.0-4.0

LLI Sample # SW 6144644
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 13:56 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8134 SDG#: DX009-09

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

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Page 4 of 4

Sample Description: SL-081-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-081-SA5C-SB-3.0-4.0

LLI Sample # SW 6144644
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 13:56 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D8134 SDG#: DX009-09

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	10333001	12/04/2010 18:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10327162401B	11/24/2010 05:21	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-072-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-4.0-5.0

LLI Sample # SW 6144645
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:28 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7245 SDG#: DX009-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 7.3	% 0.50	% 0.50	1

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

Sample Description: SL-072-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-4.0-5.0

LLI Sample # SW 6144645
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:28 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7245 SDG#: DX009-10

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	0.0500 JQ	0.0310	1.08	1
11031	12378-PeCDD	40321-76-4	0.0743 JQ	0.0261	5.39	1
11031	123478-HxCDD	39227-28-6	0.0201 U	0.0201	5.39	1
11031	123678-HxCDD	57653-85-7	0.0647 JQ	0.0206	5.39	1
11031	123789-HxCDD	19408-74-3	0.0647 J	0.0218	5.39	1
11031	1234678-HpCDD	35822-46-9	0.485 J	0.0329	5.39	1
11031	OCDD	3268-87-9	1.67 J	0.0274	10.8	1
11031	2378-TCDF	51207-31-9	0.0270 U	0.0270	1.08	1
11031	12378-PeCDF	57117-41-6	0.0858 J	0.0205	5.39	1
11031	23478-PeCDF	57117-31-4	0.176 J	0.0172	5.39	1
11031	123478-HxCDF	70648-26-9	0.227 J	0.0318	5.39	1
11031	123678-HxCDF	57117-44-9	0.198 JQ	0.0316	5.39	1
11031	123789-HxCDF	72918-21-9	0.120 JQ	0.0372	5.39	1
11031	234678-HxCDF	60851-34-5	0.341 J	0.0311	5.39	1
11031	1234678-HpCDF	67562-39-4	1.30 J	0.0181	5.39	1
11031	1234789-HpCDF	55673-89-7	0.118 JQ	0.0229	5.39	1
11031	OCDF	39001-02-0	0.642 J	0.0334	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	56	25 - 164
13C12-12378-PeCDD	67	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	55	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	66	21 - 178
13C12-123478-HxCDF	64	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	56	17 - 157
13C12-1278-TCDD (CRS)	65	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-072-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-4.0-5.0

LLI Sample # SW 6144645
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:28 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7245 SDG#: DX009-10

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-072-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-4.0-5.0

LLI Sample # SW 6144645
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:28 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7245 SDG#: DX009-10

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	10333001	12/04/2010 19:33	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1



Analysis Report

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Sample Description: SL-072-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-7.5-8.5

LLI Sample # SW 6144646
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:30 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7278 SDG#: DX009-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids 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-072-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-7.5-8.5

LLI Sample # SW 6144646
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:30 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7278 SDG#: DX009-11

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	0.0219 U	0.0219	1.11	1
11031	12378-PeCDD	40321-76-4	0.0284 JQ	0.0237	5.57	1
11031	123478-HxCDD	39227-28-6	0.0190 U	0.0190	5.57	1
11031	123678-HxCDD	57653-85-7	0.0189 U	0.0189	5.57	1
11031	123789-HxCDD	19408-74-3	0.0331 JQ	0.0190	5.57	1
11031	1234678-HpCDD	35822-46-9	0.581 J	0.0282	5.57	1
11031	OCDD	3268-87-9	2.56 J	0.0286	11.1	1
11031	2378-TCDF	51207-31-9	0.0305 J	0.0249	1.11	1
11031	12378-PeCDF	57117-41-6	0.0178 U	0.0178	5.57	1
11031	23478-PeCDF	57117-31-4	0.170 J	0.0165	5.57	1
11031	123478-HxCDF	70648-26-9	0.223 JQ	0.0305	5.57	1
11031	123678-HxCDF	57117-44-9	0.156 J	0.0300	5.57	1
11031	123789-HxCDF	72918-21-9	0.0347 U	0.0347	5.57	1
11031	234678-HxCDF	60851-34-5	0.393 J	0.0292	5.57	1
11031	1234678-HpCDF	67562-39-4	1.53 J	0.0178	5.57	1
11031	1234789-HpCDF	55673-89-7	0.0906 JQ	0.0228	5.57	1
11031	OCDF	39001-02-0	0.756 J	0.0320	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	71	25 - 164
13C12-12378-PeCDD	77	25 - 181
13C12-123478-HxCDD	78	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	78	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	71	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	74	26 - 123
13C12-234678-HxCDF	75	28 - 136
13C12-123789-HxCDF	74	29 - 147
13C12-1234678-HpCDF	75	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	60	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

Sample Description: SL-072-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-7.5-8.5

LLI Sample # SW 6144646
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:30 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7278 SDG#: DX009-11

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-072-SA5C-SB-7.5-8.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-072-SA5C-SB-7.5-8.5

LLI Sample # SW 6144646
LLI Group # 1221912
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/17/2010 15:30 by PH

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

Submitted: 11/18/2010 09:00

Reported: 12/30/2010 14:59

D7278 SDG#: DX009-11

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	10333001	12/04/2010 20:32	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10333001	11/29/2010 12:30	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 02:59 PM

Group Number: 1221912

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

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 10327162401B 28a Total Solids by 160.3	Sample number(s): 6144637-6144644				100		80-120		
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6144645-6144646				100		80-120		

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
Batch number: 10333001	Sample number(s): 6144637-6144646								
2378-TCDD	0.0175 U	0.0175	1.00	ng/kg	100		67-158		
12378-PeCDD	0.0166 U	0.0166	5.00	ng/kg	98		70-142		
123478-HxCDD	0.0575 J	0.0177	5.00	ng/kg	97		70-164		
123678-HxCDD	0.0869 J	0.0180	5.00	ng/kg	97		76-134		
123789-HxCDD	0.0795 J	0.0176	5.00	ng/kg	95		64-162		
1234678-HpCDD	0.459 J	0.0207	5.00	ng/kg	97		70-140		
OCDD	0.823 J	0.0270	10.0	ng/kg	96		78-144		
2378-TCDF	0.0202 U	0.0202	1.00	ng/kg	101		75-158		
12378-PeCDF	0.0918 J	0.0145	5.00	ng/kg	97		80-134		
23478-PeCDF	0.205 J	0.0125	5.00	ng/kg	96		68-160		
123478-HxCDF	0.266 J	0.0219	5.00	ng/kg	98		72-134		
123678-HxCDF	0.216 J	0.0206	5.00	ng/kg	97		84-130		
123789-HxCDF	0.192 J	0.0246	5.00	ng/kg	97		78-130		
234678-HxCDF	0.381 J	0.0208	5.00	ng/kg	98		70-156		
1234678-HpCDF	1.58 J	0.0132	5.00	ng/kg	100		82-122		
1234789-HpCDF	0.190 J	0.0166	5.00	ng/kg	98		78-138		
OCDF	0.760 J	0.0240	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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10327162401B 28a Total Solids by 160.3	Sample number(s): 6144637-6144644					BKG: P144589 9.5	8.5	11	20
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6144645-6144646					BKG: P149363 10	9.8	2	20
Batch number: 10333001 2378-TCDD	Sample number(s): 6144637-6144646				UNSPK: 6144637 97				
		99	67-158	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: 12/30/10 at 02:59 PM

Group Number: 1221912

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
12378-PeCDD	97	99	70-142	2	25				
123478-HxCDD	99	97	70-164	2	25				
123678-HxCDD	97	96	76-134	1	25				
123789-HxCDD	98	97	64-162	0	25				
1234678-HpCDD	97	96	70-140	1	25				
OCDD	98	96	78-144	2	25				
2378-TCDF	100	101	75-158	1	25				
12378-PeCDF	98	97	80-134	1	25				
23478-PeCDF	97	96	68-160	1	25				
123478-HxCDF	99	97	72-134	2	25				
123678-HxCDF	98	97	84-130	1	25				
123789-HxCDF	98	97	78-130	0	25				
234678-HxCDF	98	97	70-156	1	25				
1234678-HpCDF	97	97	82-122	0	25				
1234789-HpCDF	99	97	78-138	2	25				
OCDF	98	97	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: 10333001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6144637	66	71	71	73	72	74
6144638	66	69	68	70	68	66
6144639	70	78	77	76	76	76
6144640	63	71	70	72	71	71
6144641	60	67	65	67	67	68
6144642	67	74	75	75	75	77
6144643	71	71	70	72	72	71
6144644	73	74	73	73	72	73
6144645	56	66	64	67	65	67
6144646	71	75	72	74	75	74
Blank	65	89	70	70	71	67
MS	66	69	68	70	68	66
MSD	70	78	77	76	76	76
OPR	66	67	65	65	65	65
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
6144637	73	70	63	77	73	74
6144638	71	66	63	76	70	70
6144639	76	73	65	82	77	78
6144640	73	67	58	74	71	72

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 02:59 PM

Group Number: 1221912

Surrogate Quality Control

6144641	67	66	61	69	67	67
6144642	78	73	68	76	75	76
6144643	71	62	51	79	74	74
6144644	76	69	60	80	76	74
6144645	65	63	56	65	67	68
6144646	75	69	60	79	77	78
Blank	72	63	51	76	92	73
MS	71	66	63	76	70	70
MSD	76	73	65	82	77	78
OPR	66	61	52	73	67	67
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
6144637	76	75	75	69	66	70
6144638	71	69	72	66	64	68
6144639	79	78	79	72	71	74
6144640	74	72	73	68	64	70
6144641	71	69	69	64	60	64
6144642	78	78	77	73	66	72
6144643	73	74	71	64	69	71
6144644	77	75	75	70	71	73
6144645	69	68	66	59	55	62
6144646	77	78	78	71	71	74
Blank	69	71	69	56	64	85
MS	71	69	72	66	64	68
MSD	79	78	79	72	71	74
OPR	69	68	67	62	63	65
Limits:	28-130	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 12/19/12 6144637-46

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	Other Instructions and Notes		
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers														
SL-080-SA5C-SB-4.5	11.17.10	1000	soil	none	4 - Encore samplers	X	X												
SL-080-SA5C-SB-4.0-5.0 MS	11.17.10	1010	soil	none	6 - 16 oz jars			X		X	X	X	X	X	X		MS/MSD sample		
SL-080-SA5C-SB-7.5-8.5	11.17.10	1013	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-079-SA5C-SB-4.5	11.17.10	1200	soil	none	4 - Encore samplers	X	X												
SL-079-SA5C-SB-4.0-5.0	11.17.10	1204	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-079-SA5C-SB-8.5-9.5	11.17.10	1210	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X	X			
DUP08-SA5C-QC-111710	11.17.10	1015	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-081-SA5C-SB-4.5	11.17.10	1350	soil	none	4 - Encore samplers	X	X												
SL-081-SA5C-SB-3.0-4.0	11.17.10	1356	soil	none	2 - 16 oz jars			X		X	X	X	X	X	X				
SL-072-SA5C-SB-4.5	11.17.10	1525	soil	none	4 - Encore samplers	X	X												
TB-111710	11.17.10	1600	water	HCl	3 - 40 ml VOA vials												Trip blank		
<i>PP 11/17/2010</i>																			
Relinquished by: (Signature) <i>[Signature]</i>						Date/Time		Received for Laboratory by: (Signature) <i>[Signature]</i>		Date/Time		Laboratory:							
						11.17.10 1630				11/18/12 900		Lancaster Laboratories, Inc.							
Received by: (Signature) <i>[Signature]</i>						Date/Time		Airbill No. 00732992						Tracking Number 869514313264					

6144637-46

[illegible]

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/23/2010

Group Number: 1222510

SDG: DX010

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-050-SA5C-SB-4.0-5.0 Soil	6148504
SL-050-SA5C-SB-9.0-10.0 Soil	6148505
SL-053-SA5C-SB-3.0-4.0 Soil	6148506
SL-066-SA5C-SB-3.0-4.0 Soil	6148507
SL-078-SA5C-SB-4.0-5.0 Soil	6148508

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

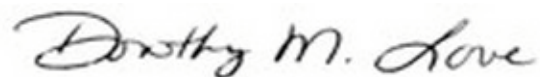
ELECTRONIC
COPY TO
1 COPY TO

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,



Dorothy M. Love
Group Leader



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-050-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-4.0-5.0

LLI Sample # SW 6148504
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:20 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5045 SDG#: DX010-01

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	28a Total Solids by 160.3	n.a.	8.5	0.50	0.50	1

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

Sample Description: SL-050-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-4.0-5.0

LLI Sample # SW 6148504
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:20 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5045 SDG#: DX010-01

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	0.0312 J	0.0179	1.09	1
11031	12378-PeCDD	40321-76-4	0.0379 JQ	0.0215	5.46	1
11031	123478-HxCDD	39227-28-6	0.0336 JBQ	0.0172	5.46	1
11031	123678-HxCDD	57653-85-7	0.0775 JB	0.0167	5.46	1
11031	123789-HxCDD	19408-74-3	0.0858 JBQ	0.0172	5.46	1
11031	1234678-HpCDD	35822-46-9	0.282 JB	0.0231	5.46	1
11031	OCDD	3268-87-9	0.615 JB	0.0391	10.9	1
11031	2378-TCDF	51207-31-9	0.0221 JBQ	0.0168	1.09	1
11031	12378-PeCDF	57117-41-6	0.0747 JBQ	0.0170	5.46	1
11031	23478-PeCDF	57117-31-4	0.151 JB	0.0162	5.46	1
11031	123478-HxCDF	70648-26-9	0.175 JBQ	0.0260	5.46	1
11031	123678-HxCDF	57117-44-9	0.133 JBQ	0.0252	5.46	1
11031	123789-HxCDF	72918-21-9	0.117 JBQ	0.0293	5.46	1
11031	234678-HxCDF	60851-34-5	0.252 JBQ	0.0258	5.46	1
11031	1234678-HpCDF	67562-39-4	1.03 JB	0.0162	5.46	1
11031	1234789-HpCDF	55673-89-7	0.121 JB	0.0228	5.46	1
11031	OCDF	39001-02-0	0.482 JB	0.0354	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	68	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	71	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	46	17 - 157
13C12-1278-TCDD (CRS)	77	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-050-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-4.0-5.0

LLI Sample # SW 6148504
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:20 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5045 SDG#: DX010-01

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-050-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-4.0-5.0

LLI Sample # SW 6148504
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:20 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5045 SDG#: DX010-01

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	10345001	12/17/2010 00:27	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1



Analysis Report

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Sample Description: SL-050-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-9.0-10.0

LLI Sample # SW 6148505
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5091 SDG#: DX010-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	EPA 160.3 modified		%	%	%	
11625	28a Total Solids 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-050-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-9.0-10.0

LLI Sample # SW 6148505
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5091 SDG#: DX010-02

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	0.0264 JQ	0.0167	1.13	1
11031	12378-PeCDD	40321-76-4	0.0563 JQ	0.0225	5.65	1
11031	123478-HxCDD	39227-28-6	0.0386 JBQ	0.0176	5.65	1
11031	123678-HxCDD	57653-85-7	0.114 JBQ	0.0180	5.65	1
11031	123789-HxCDD	19408-74-3	0.164 JBQ	0.0177	5.65	1
11031	1234678-HpCDD	35822-46-9	0.516 JBQ	0.0266	5.65	1
11031	OCDD	3268-87-9	6.62 JB	0.0303	11.3	1
11031	2378-TCDF	51207-31-9	0.0259 JBQ	0.0194	1.13	1
11031	12378-PeCDF	57117-41-6	0.0871 JBQ	0.0149	5.65	1
11031	23478-PeCDF	57117-31-4	0.124 JB	0.0134	5.65	1
11031	123478-HxCDF	70648-26-9	0.103 JBQ	0.0190	5.65	1
11031	123678-HxCDF	57117-44-9	0.0777 JBQ	0.0184	5.65	1
11031	123789-HxCDF	72918-21-9	0.237 JB	0.0202	5.65	1
11031	234678-HxCDF	60851-34-5	0.144 JBQ	0.0188	5.65	1
11031	1234678-HpCDF	67562-39-4	0.543 JB	0.0149	5.65	1
11031	1234789-HpCDF	55673-89-7	0.0877 JBQ	0.0197	5.65	1
11031	OCDF	39001-02-0	0.394 JB	0.0277	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	71	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	73	29 - 147
13C12-1234678-HpCDF	72	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	45	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
- Q EMPC - Estimated Maximum Possible Concentration



Analysis Report

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Sample Description: SL-050-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-9.0-10.0

LLI Sample # SW 6148505
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5091 SDG#: DX010-02

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

Sample Description: SL-050-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-050-SA5C-SB-9.0-10.0

LLI Sample # SW 6148505
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 10:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5091 SDG#: DX010-02

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	10345001	12/17/2010 04:26	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1



Analysis Report

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Sample Description: SL-053-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SB-3.0-4.0

LLI Sample # SW 6148506
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 11:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5334 SDG#: DX010-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 6.3	% 0.50	% 0.50	1

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

Sample Description: SL-053-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SB-3.0-4.0

LLI Sample # SW 6148506
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 11:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5334 SDG#: DX010-03

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	0.0323 J	0.0158	1.07	1
11031	12378-PeCDD	40321-76-4	0.0737 JQ	0.0303	5.34	1
11031	123478-HxCDD	39227-28-6	0.0381 JBQ	0.0264	5.34	1
11031	123678-HxCDD	57653-85-7	0.220 JBQ	0.0254	5.34	1
11031	123789-HxCDD	19408-74-3	0.249 JBQ	0.0274	5.34	1
11031	1234678-HpCDD	35822-46-9	2.86 JB	0.0260	5.34	1
11031	OCDD	3268-87-9	26.5 B	0.0453	10.7	1
11031	2378-TCDF	51207-31-9	0.0737 JBQ	0.0347	1.07	1
11031	12378-PeCDF	57117-41-6	0.224 JBQ	0.0243	5.34	1
11031	23478-PeCDF	57117-31-4	0.296 JBQ	0.0223	5.34	1
11031	123478-HxCDF	70648-26-9	0.226 JB	0.0303	5.34	1
11031	123678-HxCDF	57117-44-9	0.158 JB	0.0299	5.34	1
11031	123789-HxCDF	72918-21-9	0.289 JBQ	0.0316	5.34	1
11031	234678-HxCDF	60851-34-5	0.283 JB	0.0305	5.34	1
11031	1234678-HpCDF	67562-39-4	1.48 JB	0.0160	5.34	1
11031	1234789-HpCDF	55673-89-7	0.145 JB	0.0200	5.34	1
11031	OCDF	39001-02-0	1.52 JB	0.0249	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	64	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	63	28 - 130
13C12-123789-HxCDD	64	28 - 130
13C12-1234678-HpCDD	65	23 - 140
13C12-OCDD	55	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	65	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	49	17 - 157
13C12-1278-TCDD (CRS)	75	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

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Sample Description: SL-053-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SB-3.0-4.0

LLI Sample # SW 6148506
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 11:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5334 SDG#: DX010-03

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

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Sample Description: SL-053-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-053-SA5C-SB-3.0-4.0

LLI Sample # SW 6148506
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 11:25 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D5334 SDG#: DX010-03

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	10345001	12/17/2010 05:23	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-066-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SB-3.0-4.0

LLI Sample # SW 6148507
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 13:35 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D6634 SDG#: DX010-04

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	28a Total Solids 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-066-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SB-3.0-4.0

LLI Sample # SW 6148507
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 13:35 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D6634 SDG#: DX010-04

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	0.0309 JQ	0.0173	1.08	1
11031	12378-PeCDD	40321-76-4	0.0520 JQ	0.0268	5.39	1
11031	123478-HxCDD	39227-28-6	0.0218 U	0.0218	5.39	1
11031	123678-HxCDD	57653-85-7	0.0557 JBQ	0.0214	5.39	1
11031	123789-HxCDD	19408-74-3	0.0607 JB	0.0212	5.39	1
11031	1234678-HpCDD	35822-46-9	0.318 JB	0.0252	5.39	1
11031	OCDD	3268-87-9	0.592 JBQ	0.0419	10.8	1
11031	2378-TCDF	51207-31-9	0.0164 U	0.0164	1.08	1
11031	12378-PeCDF	57117-41-6	0.0552 JBQ	0.0188	5.39	1
11031	23478-PeCDF	57117-31-4	0.166 JB	0.0165	5.39	1
11031	123478-HxCDF	70648-26-9	0.166 JB	0.0263	5.39	1
11031	123678-HxCDF	57117-44-9	0.148 JBQ	0.0255	5.39	1
11031	123789-HxCDF	72918-21-9	0.0814 JBQ	0.0274	5.39	1
11031	234678-HxCDF	60851-34-5	0.241 JB	0.0254	5.39	1
11031	1234678-HpCDF	67562-39-4	1.03 JB	0.0199	5.39	1
11031	1234789-HpCDF	55673-89-7	0.0990 JB	0.0259	5.39	1
11031	OCDF	39001-02-0	0.563 JB	0.0324	10.8	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	69	32 - 141
13C12-123678-HxCDD	65	28 - 130
13C12-123789-HxCDD	67	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	63	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	45	17 - 157
13C12-1278-TCDD (CRS)	70	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

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Sample Description: SL-066-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SB-3.0-4.0

LLI Sample # SW 6148507
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 13:35 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D6634 SDG#: DX010-04

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

Sample Description: SL-066-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-066-SA5C-SB-3.0-4.0

LLI Sample # SW 6148507
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 13:35 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D6634 SDG#: DX010-04

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	10345001	12/17/2010 06:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10343162401A	12/09/2010 08:36	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-078-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SB-4.0-5.0

LLI Sample # SW 6148508
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 15:14 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D7845 SDG#: DX010-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 9.6	% 0.50	% 0.50	1

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

Sample Description: SL-078-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SB-4.0-5.0

LLI Sample # SW 6148508
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 15:14 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D7845 SDG#: DX010-05

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	0.0175 U	0.0175	1.11	1
11031	12378-PeCDD	40321-76-4	0.0371 J	0.0241	5.53	1
11031	123478-HxCDD	39227-28-6	0.0168 U	0.0168	5.53	1
11031	123678-HxCDD	57653-85-7	0.0332 JB	0.0169	5.53	1
11031	123789-HxCDD	19408-74-3	0.0532 JBQ	0.0175	5.53	1
11031	1234678-HpCDD	35822-46-9	0.196 JBQ	0.0217	5.53	1
11031	OCDD	3268-87-9	0.367 JB	0.0415	11.1	1
11031	2378-TCDF	51207-31-9	0.0174 U	0.0174	1.11	1
11031	12378-PeCDF	57117-41-6	0.0451 JBQ	0.0174	5.53	1
11031	23478-PeCDF	57117-31-4	0.0748 JBQ	0.0155	5.53	1
11031	123478-HxCDF	70648-26-9	0.0942 JBQ	0.0173	5.53	1
11031	123678-HxCDF	57117-44-9	0.0828 JB	0.0158	5.53	1
11031	123789-HxCDF	72918-21-9	0.0560 JBQ	0.0178	5.53	1
11031	234678-HxCDF	60851-34-5	0.133 JB	0.0163	5.53	1
11031	1234678-HpCDF	67562-39-4	0.475 JB	0.0139	5.53	1
11031	1234789-HpCDF	55673-89-7	0.0906 JBQ	0.0173	5.53	1
11031	OCDF	39001-02-0	0.298 JB	0.0308	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	54	25 - 164
13C12-12378-PeCDD	62	25 - 181
13C12-123478-HxCDD	59	32 - 141
13C12-123678-HxCDD	56	28 - 130
13C12-123789-HxCDD	56	28 - 130
13C12-1234678-HpCDD	57	23 - 140
13C12-OCDD	49	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	59	24 - 185
13C12-23478-PeCDF	62	21 - 178
13C12-123478-HxCDF	55	26 - 152
13C12-123678-HxCDF	54	26 - 123
13C12-234678-HxCDF	55	28 - 136
13C12-123789-HxCDF	56	29 - 147
13C12-1234678-HpCDF	55	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	43	17 - 157
13C12-1278-TCDD (CRS)	64	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-078-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SB-4.0-5.0

LLI Sample # SW 6148508
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 15:14 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D7845 SDG#: DX010-05

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

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Page 4 of 4

Sample Description: SL-078-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-078-SA5C-SB-4.0-5.0

LLI Sample # SW 6148508
LLI Group # 1222510
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/22/2010 15:14 by PH

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

Submitted: 11/23/2010 10:00

Reported: 12/30/2010 18:18

D7845 SDG#: DX010-05

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	10345001	12/17/2010 07:16	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 06:18 PM

Group Number: 1222510

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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6148508				100		80-120		
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6148504-6148506				100		80-120		
Batch number: 10343162401A 28a Total Solids by 160.3	Sample number(s): 6148507				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: 10345001	Sample number(s): 6148504-6148508								
2378-TCDD	0.0176 U	0.0176	1.00	ng/kg	93		67-158		
12378-PeCDD	0.0220 U	0.0220	5.00	ng/kg	97		70-142		
123478-HxCDD	0.0308 J	0.0152	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0322 J	0.0149	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0318 J	0.0160	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.155 J	0.0190	5.00	ng/kg	95		70-140		
OCDD	0.240 J	0.0262	10.0	ng/kg	95		78-144		
2378-TCDF	0.0161 J	0.0143	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0487 J	0.0150	5.00	ng/kg	96		80-134		
23478-PeCDF	0.110 J	0.0133	5.00	ng/kg	95		68-160		
123478-HxCDF	0.107 J	0.0166	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0617 J	0.0162	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0771 J	0.0198	5.00	ng/kg	96		78-130		
234678-HxCDF	0.116 J	0.0166	5.00	ng/kg	95		70-156		
1234678-HpCDF	0.419 J	0.0116	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0702 J	0.0143	5.00	ng/kg	96		78-138		
OCDF	0.250 J	0.0204	10.0	ng/kg	95		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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6148508 BKG: P149366					4.3	4.1	4	20
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6148504-6148506 BKG: P149363					10	9.8	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 / MRL.

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 06:18 PM

Group Number: 1222510

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: 10343162401A 28a Total Solids by 160.3	Sample number(s): 6148507 BKG: P148500 7.2 7.0 2 20								
Batch number: 10345001	Sample number(s): 6148504-6148508 UNSPK: P149398								
2378-TCDD	91	91	67-158	0	25				
12378-PeCDD	97	96	70-142	0	25				
123478-HxCDD	98	99	70-164	1	25				
123678-HxCDD	96	97	76-134	0	25				
123789-HxCDD	98	96	64-162	2	25				
1234678-HpCDD	98	95	70-140	3	25				
OCDD	98	96	78-144	3	25				
2378-TCDF	93	94	75-158	1	25				
12378-PeCDF	96	96	80-134	1	25				
23478-PeCDF	96	95	68-160	1	25				
123478-HxCDF	96	96	72-134	0	25				
123678-HxCDF	96	95	84-130	1	25				
123789-HxCDF	96	95	78-130	0	25				
234678-HxCDF	95	96	70-156	0	25				
1234678-HpCDF	97	94	82-122	3	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	97	95	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: 10345001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6148504	68	78	72	71	71	70
6148505	69	78	72	70	70	73
6148506	64	72	65	62	62	66
6148507	67	71	63	62	64	67
6148508	54	62	55	54	55	56
Blank	59	75	72	71	70	65
MS	69	73	68	66	67	70
MSD	59	64	60	59	60	62
OPR	58	68	64	64	65	66
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
6148504	73	60	46	77	79	75
6148505	72	62	45	76	79	75
6148506	63	58	49	75	72	68

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:18 PM

Group Number: 1222510

Surrogate Quality Control

6148507	63	57	45	70	74	69
6148508	55	50	43	64	62	59
Blank	75	66	56	69	76	75
MS	67	57	45	74	74	72
MSD	61	56	49	65	66	63
OPR	71	65	56	62	70	68
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
6148504	72	74	70	59	71	76
6148505	72	73	71	59	70	77
6148506	63	64	65	55	68	70
6148507	65	67	64	56	65	70
6148508	56	56	57	49	54	59
Blank	71	70	73	63	60	72
MS	67	69	66	57	70	73
MSD	59	62	62	56	59	62
OPR	66	68	71	64	58	68
Limits:	28-130	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 1222510 6148504-08

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						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																										
Samplers: (Signature) <i>Pamela Hartman</i>																										
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers	VOCs/EPA 8260B	1,4-Dioxane EPA 8260S/M	SVOCs EPA 8270C & PAHs 8270 S/M	TPH-EFH EPA 8015B Mod.	TPH-GRO EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	**Nitrate EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**7-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9011g	**pH EPA 9045C	**Alcohols/Glycols EPA 8015B	**Terphenyls EPA 8015B
SL-050-SA5C-SB-4.5	11.22.10	1015	soil	none	5 Encore samplers	X	X		X																	
SL-050-SA5C-SB-4.0-5.0	11.22.10	1020	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X										
SL-050-SA5C-SB-4.0-5.0	11.22.10	1020	soil	none	1 - 16 oz. jar													X	X		X	X	X	X		X
SL-050-SA5C-SB-4.0-5.0	11.22.10	1020	soil	none	3 - 4 oz. jars				X																X	
SL-050-SA5C-SB-4.0-5.0	11.22.10	1020	soil	none	1 - 4 oz. amber jar															X						
SL-050-SA5C-SB-9.0-10.0	11.22.10	1025	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X										
SL-050-SA5C-SB-9.0-10.0	11.22.10	1025	soil	none	1 - 16 oz. jar													X	X		X	X	X	X		X
SL-050-SA5C-SB-9.0-10.0	11.22.10	1025	soil	none	3 - 4 oz. jars				X																X	
SL-050-SA5C-SB-9.0-10.0	11.22.10	1025	soil	none	1 - 4 oz. amber jar															X						
SL-053-SA5C-SB-3.5	11.22.10	1120	soil	none	5 Encore samplers	X	X			X																
SL-053-SA5C-SB-3.0-4.0	11.22.10	1125	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X										
SL-053-SA5C-SB-3.0-4.0	11.22.10	1125	soil	none	1 - 16 oz. jar													X	X		X	X	X	X		X
SL-053-SA5C-SB-3.0-4.0	11.22.10	1125	soil	none	3 - 4 oz. jars				X																X	
SL-053-SA5C-SB-3.0-4.0	11.22.10	1125	soil	none	1 - 4 oz. amber jar															X						
SL-066-SA5C-SB-3.5	11.22.10	1330	soil	none	5 Encore samplers	X	X			X																
SL-078-SA5C-SB-4.5	11.22.10	1510	soil	none	4 Encore samplers	X	X																			
TB-112210	11.22.10	1530	water	HCl	4 - 40 ml VOAs	X	X			X																
Relinquished by: (Signature) <i>Jully Samantoni</i>	Date/Time	11.22.10	1630	Received for Laboratory by: (Signature) <i>[Signature]</i>	Date/Time	11/22/10	1630	Laboratory: Lancaster Laboratories, Inc.																		
Received by: (Signature) <i>FedEx</i>	Date/Time			Airbill No. 00732992	Tracking Number 869514314650	Cooler 1																				

6148504-08

CHAIN OF CUSTODY RECORD

[illegible]

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/24/2010

Group Number: 1222702

SDG: DX010

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
DUP09-SA5C-QC-112310 Soil	6149392
SL-060-SA5C-SB-4.0-5.0 Soil	6149393
SL-060-SA5C-SB-9.0-10.0 Soil	6149394
SL-076-SA5C-SB-3.0-4.0 Soil	6149395
SL-077-SA5C-SB-3.0-4.0 Soil	6149396
SL-062-SA5C-SB-2.5-3.5 Soil	6149397
SL-065-SA5C-SB-2.5-3.5 Soil	6149398
SL-065-SA5C-SB-2.5-3.5MS Soil	6149399
SL-065-SA5C-SB-2.5-3.5MSD Soil	6149400
EB10-SA5C-112310 Water	6149401

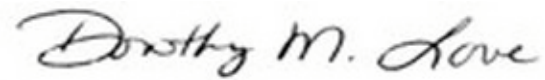
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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

Attn: Todd Burgesser

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

Respectfully Submitted,



Dorothy M. Love
Group Leader



Analysis Report

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Page 1 of 4

Sample Description: DUP09-SA5C-QC-112310 Soil
SSFL Area IV Collocated Soil Sampling
DUP09-SA5C-QC-112310

LLI Sample # SW 6149392
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:41 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DDP09 SDG#: DX010-06FD

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	28a Total Solids 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: DUP09-SA5C-QC-112310 Soil
SSFL Area IV Collocated Soil Sampling
DUP09-SA5C-QC-112310

LLI Sample # SW 6149392
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:41 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DDP09 SDG#: DX010-06FD

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	0.0535 JQ	0.0138	1.05	1
11031	12378-PeCDD	40321-76-4	0.0337 J	0.0163	5.23	1
11031	123478-HxCDD	39227-28-6	0.0193 JB	0.0135	5.23	1
11031	123678-HxCDD	57653-85-7	0.0310 JBQ	0.0134	5.23	1
11031	123789-HxCDD	19408-74-3	0.0372 JBQ	0.0135	5.23	1
11031	1234678-HpCDD	35822-46-9	0.263 JB	0.0174	5.23	1
11031	OCDD	3268-87-9	0.735 JB	0.0240	10.5	1
11031	2378-TCDF	51207-31-9	0.0134 U	0.0134	1.05	1
11031	12378-PeCDF	57117-41-6	0.0632 JBQ	0.0137	5.23	1
11031	23478-PeCDF	57117-31-4	0.122 JB	0.0126	5.23	1
11031	123478-HxCDF	70648-26-9	0.132 JB	0.0208	5.23	1
11031	123678-HxCDF	57117-44-9	0.109 JBQ	0.0200	5.23	1
11031	123789-HxCDF	72918-21-9	0.0431 JBQ	0.0226	5.23	1
11031	234678-HxCDF	60851-34-5	0.185 JB	0.0201	5.23	1
11031	1234678-HpCDF	67562-39-4	0.774 JB	0.0111	5.23	1
11031	1234789-HpCDF	55673-89-7	0.0805 JB	0.0144	5.23	1
11031	OCDF	39001-02-0	0.408 JB	0.0214	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	67	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	74	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	68	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	73	26 - 152
13C12-123678-HxCDF	72	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	76	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	74	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: DUP09-SA5C-QC-112310 Soil
SSFL Area IV Collocated Soil Sampling
DUP09-SA5C-QC-112310

LLI Sample # SW 6149392
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:41 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DDP09 SDG#: DX010-06FD

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: DUP09-SA5C-QC-112310 Soil
SSFL Area IV Collocated Soil Sampling
DUP09-SA5C-QC-112310

LLI Sample # SW 6149392
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:41 by PH

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
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Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DDP09 SDG#: DX010-06FD

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	10345001	12/17/2010 08:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1



Analysis Report

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Sample Description: SL-060-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-4.0-5.0

LLI Sample # SW 6149393
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:05 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6045 SDG#: DX010-07

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	28a Total Solids by 160.3	n.a.	6.5	0.50	0.50	1

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

Sample Description: SL-060-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-4.0-5.0

LLI Sample # SW 6149393
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:05 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6045 SDG#: DX010-07

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	0.0466 JQ	0.0165	1.07	1
11031	12378-PeCDD	40321-76-4	0.181 JQ	0.0255	5.35	1
11031	123478-HxCDD	39227-28-6	0.0374 JBQ	0.0236	5.35	1
11031	123678-HxCDD	57653-85-7	0.416 JBQ	0.0226	5.35	1
11031	123789-HxCDD	19408-74-3	0.658 JB	0.0224	5.35	1
11031	1234678-HpCDD	35822-46-9	0.585 JBQ	0.0224	5.35	1
11031	OCDD	3268-87-9	4.37 JB	0.0243	10.7	1
11031	2378-TCDF	51207-31-9	0.0634 JB	0.0249	1.07	1
11031	12378-PeCDF	57117-41-6	0.194 JB	0.0183	5.35	1
11031	23478-PeCDF	57117-31-4	0.204 JB	0.0175	5.35	1
11031	123478-HxCDF	70648-26-9	0.129 JBQ	0.0237	5.35	1
11031	123678-HxCDF	57117-44-9	0.160 JB	0.0229	5.35	1
11031	123789-HxCDF	72918-21-9	0.669 JB	0.0275	5.35	1
11031	234678-HxCDF	60851-34-5	0.194 JBQ	0.0231	5.35	1
11031	1234678-HpCDF	67562-39-4	0.643 JB	0.0124	5.35	1
11031	1234789-HpCDF	55673-89-7	0.0894 JBQ	0.0176	5.35	1
11031	OCDF	39001-02-0	0.434 JB	0.0236	10.7	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	66	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	75	32 - 141
13C12-123678-HxCDD	72	28 - 130
13C12-123789-HxCDD	73	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	67	17 - 157
13C12-2378-TCDF	66	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	71	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	67	29 - 147
13C12-1234678-HpCDF	81	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	71	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-060-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-4.0-5.0

LLI Sample # SW 6149393
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:05 by PH

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Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6045 SDG#: DX010-07

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



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Sample Description: SL-060-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-4.0-5.0

LLI Sample # SW 6149393
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:05 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6045 SDG#: DX010-07

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	10345001	12/17/2010 09:09	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Sample Description: SL-060-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-9.0-10.0

LLI Sample # SW 6149394
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:10 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6091 SDG#: DX010-08

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	28a Total Solids by 160.3	n.a.	10	0.50	0.50	1

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

Sample Description: SL-060-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-9.0-10.0

LLI Sample # SW 6149394
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:10 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6091 SDG#: DX010-08

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	0.0509 J	0.0152	1.11	1
11031	12378-PeCDD	40321-76-4	0.119 J	0.0260	5.56	1
11031	123478-HxCDD	39227-28-6	0.0324 JB	0.0248	5.56	1
11031	123678-HxCDD	57653-85-7	0.562 JBQ	0.0246	5.56	1
11031	123789-HxCDD	19408-74-3	0.892 JB	0.0249	5.56	1
11031	1234678-HpCDD	35822-46-9	0.916 JB	0.0213	5.56	1
11031	OCDD	3268-87-9	8.57 JB	0.0253	11.1	1
11031	2378-TCDF	51207-31-9	0.0849 JBQ	0.0351	1.11	1
11031	12378-PeCDF	57117-41-6	0.201 JB	0.0200	5.56	1
11031	23478-PeCDF	57117-31-4	0.280 JBQ	0.0178	5.56	1
11031	123478-HxCDF	70648-26-9	0.168 JB	0.0260	5.56	1
11031	123678-HxCDF	57117-44-9	0.202 JBQ	0.0249	5.56	1
11031	123789-HxCDF	72918-21-9	0.803 JB	0.0276	5.56	1
11031	234678-HxCDF	60851-34-5	0.259 JB	0.0253	5.56	1
11031	1234678-HpCDF	67562-39-4	0.905 JB	0.0120	5.56	1
11031	1234789-HpCDF	55673-89-7	0.114 JB	0.0162	5.56	1
11031	OCDF	39001-02-0	0.707 JB	0.0194	11.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	86	25 - 181
13C12-123478-HxCDD	81	32 - 141
13C12-123678-HxCDD	77	28 - 130
13C12-123789-HxCDD	79	28 - 130
13C12-1234678-HpCDD	80	23 - 140
13C12-OCDD	72	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	83	24 - 185
13C12-23478-PeCDF	84	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	77	28 - 136
13C12-123789-HxCDF	76	29 - 147
13C12-1234678-HpCDF	82	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	61	17 - 157
13C12-1278-TCDD (CRS)	80	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-060-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-9.0-10.0

LLI Sample # SW 6149394
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:10 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6091 SDG#: DX010-08

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

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Sample Description: SL-060-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-060-SA5C-SB-9.0-10.0

LLI Sample # SW 6149394
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 14:10 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6091 SDG#: DX010-08

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	10345001	12/17/2010 10:06	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Sample Description: SL-076-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SB-3.0-4.0

LLI Sample # SW 6149395
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 15:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7634 SDG#: DX010-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 5.4	% 0.50	% 0.50	1

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

Sample Description: SL-076-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SB-3.0-4.0

LLI Sample # SW 6149395
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 15:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7634 SDG#: DX010-09

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	0.0166 JQ	0.0140	1.06	1
11031	12378-PeCDD	40321-76-4	0.0356 JQ	0.0223	5.29	1
11031	123478-HxCDD	39227-28-6	0.0208 JBQ	0.0131	5.29	1
11031	123678-HxCDD	57653-85-7	0.0448 JBQ	0.0131	5.29	1
11031	123789-HxCDD	19408-74-3	0.0209 JBQ	0.0133	5.29	1
11031	1234678-HpCDD	35822-46-9	0.257 JB	0.0187	5.29	1
11031	OCDD	3268-87-9	0.499 JB	0.0314	10.6	1
11031	2378-TCDF	51207-31-9	0.0152 U	0.0152	1.06	1
11031	12378-PeCDF	57117-41-6	0.0494 JBQ	0.0137	5.29	1
11031	23478-PeCDF	57117-31-4	0.119 JBQ	0.0125	5.29	1
11031	123478-HxCDF	70648-26-9	0.150 JB	0.0219	5.29	1
11031	123678-HxCDF	57117-44-9	0.0944 JB	0.0196	5.29	1
11031	123789-HxCDF	72918-21-9	0.0580 JB	0.0244	5.29	1
11031	234678-HxCDF	60851-34-5	0.175 JB	0.0209	5.29	1
11031	1234678-HpCDF	67562-39-4	0.786 JB	0.0118	5.29	1
11031	1234789-HpCDF	55673-89-7	0.0887 JB	0.0155	5.29	1
11031	OCDF	39001-02-0	0.420 JB	0.0247	10.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	62	25 - 164
13C12-12378-PeCDD	72	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	68	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	58	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	69	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	66	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	65	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	71	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	50	17 - 157
13C12-1278-TCDD (CRS)	73	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-076-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SB-3.0-4.0

LLI Sample # SW 6149395
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 15:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7634 SDG#: DX010-09

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

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Page 4 of 4

Sample Description: SL-076-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-076-SA5C-SB-3.0-4.0

LLI Sample # SW 6149395
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 15:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7634 SDG#: DX010-09

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	10345001	12/17/2010 11:02	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-077-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SB-3.0-4.0

LLI Sample # SW 6149396
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 11:30 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7734 SDG#: DX010-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 5.0	% 0.50	% 0.50	1

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

Sample Description: SL-077-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SB-3.0-4.0

LLI Sample # SW 6149396
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 11:30 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7734 SDG#: DX010-10

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	0.0157 U	0.0157	1.05	1
11031	12378-PeCDD	40321-76-4	0.0403 JQ	0.0218	5.26	1
11031	123478-HxCDD	39227-28-6	0.0229 JBQ	0.0148	5.26	1
11031	123678-HxCDD	57653-85-7	0.0400 JBQ	0.0156	5.26	1
11031	123789-HxCDD	19408-74-3	0.0277 JBQ	0.0147	5.26	1
11031	1234678-HpCDD	35822-46-9	0.245 JB	0.0217	5.26	1
11031	OCDD	3268-87-9	0.585 JBQ	0.0244	10.5	1
11031	2378-TCDF	51207-31-9	0.0143 U	0.0143	1.05	1
11031	12378-PeCDF	57117-41-6	0.0256 JBQ	0.0154	5.26	1
11031	23478-PeCDF	57117-31-4	0.129 JBQ	0.0136	5.26	1
11031	123478-HxCDF	70648-26-9	0.133 JB	0.0202	5.26	1
11031	123678-HxCDF	57117-44-9	0.128 JB	0.0201	5.26	1
11031	123789-HxCDF	72918-21-9	0.100 JBQ	0.0207	5.26	1
11031	234678-HxCDF	60851-34-5	0.158 JB	0.0194	5.26	1
11031	1234678-HpCDF	67562-39-4	0.776 JB	0.0138	5.26	1
11031	1234789-HpCDF	55673-89-7	0.0962 JB	0.0175	5.26	1
11031	OCDF	39001-02-0	0.432 JB	0.0254	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	71	25 - 181
13C12-123478-HxCDD	66	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	65	28 - 130
13C12-1234678-HpCDD	64	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	62	24 - 169
13C12-12378-PeCDF	67	24 - 185
13C12-23478-PeCDF	69	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	60	26 - 123
13C12-234678-HxCDF	62	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	65	28 - 143
13C12-1234789-HpCDF	58	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	68	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-077-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SB-3.0-4.0

LLI Sample # SW 6149396
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 11:30 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7734 SDG#: DX010-10

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

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Sample Description: SL-077-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-077-SA5C-SB-3.0-4.0

LLI Sample # SW 6149396
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 11:30 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D7734 SDG#: DX010-10

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	10345001	12/17/2010 11:59	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10342162401A	12/08/2010 11:42	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-062-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SB-2.5-3.5

LLI Sample # SW 6149397
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 10:42 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6223 SDG#: DX010-11

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 8.5	% 0.50	% 0.50	1

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

Sample Description: SL-062-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SB-2.5-3.5

LLI Sample # SW 6149397
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 10:42 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6223 SDG#: DX010-11

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	0.0900 J	0.0282	1.09	1
11031	12378-PeCDD	40321-76-4	0.0717 J	0.0313	5.46	1
11031	123478-HxCDD	39227-28-6	0.0315 JBQ	0.0287	5.46	1
11031	123678-HxCDD	57653-85-7	0.0450 JBQ	0.0289	5.46	1
11031	123789-HxCDD	19408-74-3	0.0817 JBQ	0.0294	5.46	1
11031	1234678-HpCDD	35822-46-9	0.278 JBQ	0.0330	5.46	1
11031	OCDD	3268-87-9	0.709 JB	0.0422	10.9	1
11031	2378-TCDF	51207-31-9	0.0262 U	0.0262	1.09	1
11031	12378-PeCDF	57117-41-6	0.0727 JBQ	0.0213	5.46	1
11031	23478-PeCDF	57117-31-4	0.140 JBQ	0.0203	5.46	1
11031	123478-HxCDF	70648-26-9	0.160 JB	0.0346	5.46	1
11031	123678-HxCDF	57117-44-9	0.126 JBQ	0.0307	5.46	1
11031	123789-HxCDF	72918-21-9	0.142 JBQ	0.0353	5.46	1
11031	234678-HxCDF	60851-34-5	0.209 JBQ	0.0328	5.46	1
11031	1234678-HpCDF	67562-39-4	0.760 JB	0.0196	5.46	1
11031	1234789-HpCDF	55673-89-7	0.138 JBQ	0.0315	5.46	1
11031	OCDF	39001-02-0	0.535 JB	0.0527	10.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	63	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	72	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	74	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	85	28 - 143
13C12-1234789-HpCDF	60	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	71	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

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Page 3 of 4

Sample Description: SL-062-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SB-2.5-3.5

LLI Sample # SW 6149397
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 10:42 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6223 SDG#: DX010-11

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

Sample Description: SL-062-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-062-SA5C-SB-2.5-3.5

LLI Sample # SW 6149397
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 10:42 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6223 SDG#: DX010-11

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	10345001	12/17/2010 16:55	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	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-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149398
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 4.3	% 0.50	% 0.50	1

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

Sample Description: SL-065-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149398
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12BKG

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 JQ	0.0176	1.04	1
11031	12378-PeCDD	40321-76-4	0.0368 JQ	0.0207	5.22	1
11031	123478-HxCDD	39227-28-6	0.0217 JBQ	0.0163	5.22	1
11031	123678-HxCDD	57653-85-7	0.0537 JBQ	0.0160	5.22	1
11031	123789-HxCDD	19408-74-3	0.0461 JB	0.0170	5.22	1
11031	1234678-HpCDD	35822-46-9	0.293 JB	0.0223	5.22	1
11031	OCDD	3268-87-9	0.491 JBQ	0.0245	10.4	1
11031	2378-TCDF	51207-31-9	0.0167 U	0.0167	1.04	1
11031	12378-PeCDF	57117-41-6	0.0379 JB	0.0136	5.22	1
11031	23478-PeCDF	57117-31-4	0.114 JBQ	0.0126	5.22	1
11031	123478-HxCDF	70648-26-9	0.114 JB	0.0197	5.22	1
11031	123678-HxCDF	57117-44-9	0.107 JB	0.0191	5.22	1
11031	123789-HxCDF	72918-21-9	0.0807 JBQ	0.0209	5.22	1
11031	234678-HxCDF	60851-34-5	0.195 JBQ	0.0193	5.22	1
11031	1234678-HpCDF	67562-39-4	0.738 JB	0.0113	5.22	1
11031	1234789-HpCDF	55673-89-7	0.0948 JB	0.0141	5.22	1
11031	OCDF	39001-02-0	0.433 JB	0.0246	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	61	28 - 130
13C12-123789-HxCDD	61	28 - 130
13C12-1234678-HpCDD	61	23 - 140
13C12-OCDD	52	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	66	24 - 185
13C12-23478-PeCDF	67	21 - 178
13C12-123478-HxCDF	61	26 - 152
13C12-123678-HxCDF	60	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	63	29 - 147
13C12-1234678-HpCDF	60	28 - 143
13C12-1234789-HpCDF	55	26 - 138
13C12-OCDF	46	17 - 157
13C12-1278-TCDD (CRS)	66	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-065-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149398
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12BKG

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

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Page 4 of 4

Sample Description: SL-065-SA5C-SB-2.5-3.5 Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149398
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12BKG

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10345001	12/17/2010 17:51	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-065-SA5C-SB-2.5-3.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149399
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 4.3	% 0.50	% 0.50	1

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

Sample Description: SL-065-SA5C-SB-2.5-3.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149399
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MS

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	19.1	0.0280	1.04	1
11031	12378-PeCDD	40321-76-4	101	0.0370	5.22	1
11031	123478-HxCDD	39227-28-6	103 B	0.0536	5.22	1
11031	123678-HxCDD	57653-85-7	101 B	0.0556	5.22	1
11031	123789-HxCDD	19408-74-3	102 B	0.0524	5.22	1
11031	1234678-HpCDD	35822-46-9	102 B	0.0577	5.22	1
11031	OCDD	3268-87-9	206 B	0.0567	10.4	1
11031	2378-TCDF	51207-31-9	19.4 B	0.0288	1.04	1
11031	12378-PeCDF	57117-41-6	100 B	0.0266	5.22	1
11031	23478-PeCDF	57117-31-4	100 B	0.0241	5.22	1
11031	123478-HxCDF	70648-26-9	101 B	0.0519	5.22	1
11031	123678-HxCDF	57117-44-9	100 B	0.0489	5.22	1
11031	123789-HxCDF	72918-21-9	100 B	0.0540	5.22	1
11031	234678-HxCDF	60851-34-5	99.9 B	0.0501	5.22	1
11031	1234678-HpCDF	67562-39-4	102 B	0.0516	5.22	1
11031	1234789-HpCDF	55673-89-7	102 B	0.0717	5.22	1
11031	OCDF	39001-02-0	204 B	0.0513	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	69	25 - 164
13C12-12378-PeCDD	74	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	67	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	66	23 - 140
13C12-OCDD	57	17 - 157
13C12-2378-TCDF	70	24 - 169
13C12-12378-PeCDF	73	24 - 185
13C12-23478-PeCDF	73	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	45	17 - 157
13C12-1278-TCDD (CRS)	74	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

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Sample Description: SL-065-SA5C-SB-2.5-3.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149399
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MS

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

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Page 4 of 4

Sample Description: SL-065-SA5C-SB-2.5-3.5MS Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149399
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MS

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10345001	12/17/2010 18:48	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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



Analysis Report

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Sample Description: SL-065-SA5C-SB-2.5-3.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149400
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 4.3	% 0.50	% 0.50	1

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

Sample Description: SL-065-SA5C-SB-2.5-3.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149400
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MSD

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	19.1	0.0271	1.04	1
11031	12378-PeCDD	40321-76-4	101	0.0363	5.22	1
11031	123478-HxCDD	39227-28-6	104	0.0411	5.22	1
11031	123678-HxCDD	57653-85-7	101	0.0427	5.22	1
11031	123789-HxCDD	19408-74-3	100	0.0406	5.22	1
11031	1234678-HpCDD	35822-46-9	99.7	0.0569	5.22	1
11031	OCDD	3268-87-9	201	0.0601	10.4	1
11031	2378-TCDF	51207-31-9	19.6	0.0320	1.04	1
11031	12378-PeCDF	57117-41-6	101	0.0266	5.22	1
11031	23478-PeCDF	57117-31-4	99.0	0.0242	5.22	1
11031	123478-HxCDF	70648-26-9	101	0.0532	5.22	1
11031	123678-HxCDF	57117-44-9	99.2	0.0503	5.22	1
11031	123789-HxCDF	72918-21-9	99.6	0.0556	5.22	1
11031	234678-HxCDF	60851-34-5	100	0.0506	5.22	1
11031	1234678-HpCDF	67562-39-4	99.3	0.0495	5.22	1
11031	1234789-HpCDF	55673-89-7	102	0.0601	5.22	1
11031	OCDF	39001-02-0	199	0.0535	10.4	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	59	25 - 164
13C12-12378-PeCDD	66	25 - 181
13C12-123478-HxCDD	63	32 - 141
13C12-123678-HxCDD	59	28 - 130
13C12-123789-HxCDD	62	28 - 130
13C12-1234678-HpCDD	62	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	59	24 - 169
13C12-12378-PeCDF	62	24 - 185
13C12-23478-PeCDF	64	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	62	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	56	26 - 138
13C12-OCDF	49	17 - 157
13C12-1278-TCDD (CRS)	65	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

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Page 3 of 4

Sample Description: SL-065-SA5C-SB-2.5-3.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149400
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MSD

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

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Page 4 of 4

Sample Description: SL-065-SA5C-SB-2.5-3.5MSD Soil
SSFL Area IV Collocated Soil Sampling
SL-065-SA5C-SB-2.5-3.5

LLI Sample # SW 6149400
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 09:36 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

D6523 SDG#: DX010-12MSD

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall 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	10345001	12/17/2010 19:45	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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

Sample Description: EB10-SA5C-112310 Water
SSFL Area IV Collocated Soil Sampling
EB10-SA5C-112310

LLI Sample # WW 6149401
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 12:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DEB10 SDG#: DX010-13EB

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	0.340	U	0.340	2.00	1
10915	12378-PeCDD	40321-76-4	0.279	U	0.279	9.95	1
10915	123478-HxCDD	39227-28-6	0.168	U	0.168	9.95	1
10915	123678-HxCDD	57653-85-7	0.171	U	0.171	9.95	1
10915	123789-HxCDD	19408-74-3	0.204	JQ	0.178	9.95	1
10915	1234678-HpCDD	35822-46-9	1.44	JBQ	0.267	9.95	1
10915	OCDD	3268-87-9	3.05	JB	0.267	19.9	1
10915	2378-TCDF	51207-31-9	0.180	U	0.180	1.99	1
10915	12378-PeCDF	57117-41-6	0.308	JBQ	0.143	9.95	1
10915	23478-PeCDF	57117-31-4	0.838	JB	0.126	9.95	1
10915	123478-HxCDF	70648-26-9	1.06	JB	0.193	9.95	1
10915	123678-HxCDF	57117-44-9	0.819	JB	0.194	9.95	1
10915	123789-HxCDF	72918-21-9	0.512	JB	0.243	9.95	1
10915	234678-HxCDF	60851-34-5	1.50	JB	0.196	9.95	1
10915	1234678-HpCDF	67562-39-4	7.01	JB	0.169	9.95	1
10915	1234789-HpCDF	55673-89-7	0.839	JBQ	0.224	9.95	1
10915	OCDF	39001-02-0	3.21	JBQ	0.332	19.9	1

Due to low recoveries for the labeled compound 13C12-2378-TCDD in the 10341001 batch the result for 2378-TCDD is reported from the 10330001 batch.

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	45	25 - 181
13C12-123478-HxCDD	61	32 - 141
13C12-123678-HxCDD	60	28 - 130
13C12-123789-HxCDD	55	28 - 130
13C12-1234678-HpCDD	56	23 - 140
13C12-OCDD	45	17 - 157
13C12-2378-TCDF	54	24 - 169
13C12-12378-PeCDF	56	24 - 185
13C12-23478-PeCDF	59	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	61	26 - 123
13C12-234678-HxCDF	60	28 - 136
13C12-123789-HxCDF	59	29 - 147
13C12-1234678-HpCDF	55	28 - 143
13C12-1234789-HpCDF	50	26 - 138
13C12-OCDF	42	17 - 157
13C12-1278-TCDD (CRS)	81	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: EB10-SA5C-112310 Water
SSFL Area IV Collocated Soil Sampling
EB10-SA5C-112310

LLI Sample # WW 6149401
LLI Group # 1222702
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/23/2010 12:15 by PH

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

Submitted: 11/24/2010 09:50

Reported: 12/30/2010 18:22

DEB10 SDG#: DX010-13EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received EDL*	As Received MRL	Dilution Factor
Q	EMPC - Estimated Maximum Possible Concentration					
F	Interference is present					
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	10330001	12/02/2010 00:10	Nelson H Risser	1
10915	10b Dioxin/Furan by EPA 1613B	EPA 1613B	1	10341001	12/10/2010 01:52	Nelson H Risser	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	1	10330001	11/26/2010 08:00	Deborah M Zimmerman	1
10914	Dioxins/Furans in Water - SepF	EPA 1613B	2	10341001	12/07/2010 09:00	Deborah M Zimmerman	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 06:22 PM

Group Number: 1222702

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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6149392,6149397-6149400				100		80-120		
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6149393-6149396				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: 10330001 2378-TCDD	0.300 U	0.300	2.00	pg/l	94		67-158		
Batch number: 10341001	Sample number(s): 6149401								
12378-PeCDD	0.316 U	0.316	10.0	pg/l	87		70-142		
123478-HxCDD	0.370 J	0.211	10.0	pg/l	91		70-164		
123678-HxCDD	0.399 J	0.214	10.0	pg/l	86		76-134		
123789-HxCDD	0.219 U	0.219	10.0	pg/l	90		64-162		
1234678-HpCDD	2.60 J	0.285	10.0	pg/l	90		70-140		
OCDD	5.00 J	0.314	20.0	pg/l	91		78-144		
2378-TCDF	0.236 U	0.236	2.00	pg/l	90		75-158		
12378-PeCDF	0.416 J	0.159	10.0	pg/l	88		80-134		
23478-PeCDF	1.11 J	0.140	10.0	pg/l	88		68-160		
123478-HxCDF	1.36 J	0.272	10.0	pg/l	91		72-134		
123678-HxCDF	1.17 J	0.267	10.0	pg/l	91		84-130		
123789-HxCDF	0.723 J	0.330	10.0	pg/l	90		78-130		
234678-HxCDF	2.17 J	0.273	10.0	pg/l	91		70-156		
1234678-HpCDF	9.33 J	0.193	10.0	pg/l	92		82-122		
1234789-HpCDF	1.04 J	0.254	10.0	pg/l	92		78-138		
OCDF	4.55 J	0.358	20.0	pg/l	93		63-170		
Batch number: 10345001	Sample number(s): 6149392-6149400								
2378-TCDD	0.0176 U	0.0176	1.00	ng/kg	93		67-158		
12378-PeCDD	0.0220 U	0.0220	5.00	ng/kg	97		70-142		
123478-HxCDD	0.0308 J	0.0152	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0322 J	0.0149	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0318 J	0.0160	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.155 J	0.0190	5.00	ng/kg	95		70-140		
OCDD	0.240 J	0.0262	10.0	ng/kg	95		78-144		
2378-TCDF	0.0161 J	0.0143	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0487 J	0.0150	5.00	ng/kg	96		80-134		
23478-PeCDF	0.110 J	0.0133	5.00	ng/kg	95		68-160		
123478-HxCDF	0.107 J	0.0166	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0617 J	0.0162	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0771 J	0.0198	5.00	ng/kg	96		78-130		
234678-HxCDF	0.116 J	0.0166	5.00	ng/kg	95		70-156		
1234678-HpCDF	0.419 J	0.0116	5.00	ng/kg	95		82-122		

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:22 PM

Group Number: 1222702

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
1234789-HpCDF	0.0702 J	0.0143	5.00	ng/kg	96		78-138		
OCDF	0.250 J	0.0204	10.0	ng/kg	95		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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6149392,6149397-6149400 BKG: P149366 4.3 4.1 4 20								
Batch number: 10342162401A 28a Total Solids by 160.3	Sample number(s): 6149393-6149396 BKG: P149363 10 9.8 2 20								
Batch number: 10345001	Sample number(s): 6149392-6149400 UNSPK: 6149398								
2378-TCDD	91	91	67-158	0	25				
12378-PeCDD	97	96	70-142	0	25				
123478-HxCDD	98	99	70-164	1	25				
123678-HxCDD	96	97	76-134	0	25				
123789-HxCDD	98	96	64-162	2	25				
1234678-HpCDD	98	95	70-140	3	25				
OCDD	98	96	78-144	3	25				
2378-TCDF	93	94	75-158	1	25				
12378-PeCDF	96	96	80-134	1	25				
23478-PeCDF	96	95	68-160	1	25				
123478-HxCDF	96	96	72-134	0	25				
123678-HxCDF	96	95	84-130	1	25				
123789-HxCDF	96	95	78-130	0	25				
234678-HxCDF	95	96	70-156	0	25				
1234678-HpCDF	97	94	82-122	3	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	97	95	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: 10b Dioxin/Furan by EPA 1613B

Batch number: 10330001

13C12-2378-TCDD

13C12-1278-TCDD

(CRS)

6149401	61	81
Blank	68	92
OPR	64	79

Limits: 25-164 35-197

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

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:22 PM

Group Number: 1222702

Surrogate Quality Control

Batch number: 10341001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6149401		59	60	61	60	59
RE						
Blank	28	63	63	64	64	62
OPR	28	69	69	70	70	69

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

6149401	55	50	42		45	61
RE						
Blank	59	55	47	34*	51	63
OPR	66	61	52	35	54	68

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

6149401	60	55	56	45	54	56
RE						
Blank	65	61	59	51	58	60
OPR	71	65	65	56	67	68

Limits:	28-130	28-130	23-140	17-157	24-169	24-185
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Analysis Name: 10a Dioxin/Furan by EPA 1613B

Batch number: 10345001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6149392	67	77	73	72	72	70
6149393	66	76	72	71	72	67
6149394	75	84	76	75	77	76
6149395	62	69	66	66	65	64
6149396	61	69	61	60	62	65
6149397	63	74	67	70	68	69
6149398	59	67	61	60	60	63
6149399	69	73	68	66	67	70
6149400	59	64	60	59	60	62
Blank	59	75	72	71	70	65
MS	69	73	68	66	67	70
MSD	59	64	60	59	60	62
OPR	58	68	64	64	65	66

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

6149392	76	66	55	74	79	76
6149393	81	66	55	71	79	75
6149394	82	71	61	80	86	81
6149395	71	60	50	73	72	70
6149396	65	58	48	68	71	66

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:22 PM

Group Number: 1222702

Surrogate Quality Control

6149397	85	60	48	71	76	73
6149398	60	55	46	66	69	63
6149399	67	57	45	74	74	72
6149400	61	56	49	65	66	63
Blank	75	66	56	69	76	75
MS	67	57	45	74	74	72
MSD	61	56	49	65	66	63
OPR	71	65	56	62	70	68
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
6149392	74	74	74	64	68	74
6149393	72	73	76	67	66	76
6149394	77	79	80	72	76	83
6149395	67	68	69	58	63	69
6149396	61	65	64	56	62	67
6149397	69	71	72	63	63	76
6149398	61	61	61	52	61	66
6149399	67	69	66	57	70	73
6149400	59	62	62	56	59	62
Blank	71	70	73	63	60	72
MS	67	69	66	57	70	73
MSD	59	62	62	56	59	62
OPR	66	68	71	64	58	68
Limits:	28-130	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.

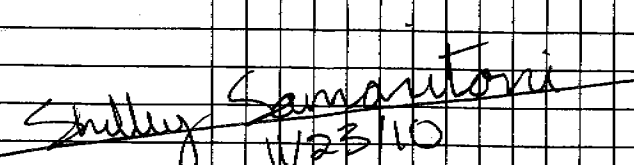
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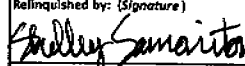
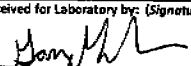
CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING																									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																												
Samplers: (Signature) <i>Pamela Hathorn Sully Samantoni</i>							VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-EFH EPA 8015B Mod.	TPH-GRO EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**p-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohols/Glycols EPA 8015B	**Terphenyls EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																							
DUP09-SASC-QC-112310	11.23.10	0941	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X												
SL-060-SASC-SB-4.0-5.0	11.23.10	1405	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X												
SL-060-SASC-SB-4.0-5.0	11.23.10	1405	soil	none	1 - 16 oz. jar												X	X		X	X	X	X		X			
SL-060-SASC-SB-4.0-5.0	11.23.10	1405	soil	none	3 - 4 oz. jars				X																X			
SL-060-SASC-SB-4.0-5.0	11.23.10	1405	soil	none	1 - 4 oz. amber jar													X										
SL-060-SASC-SB-9.0-10.0	11.23.10	1410	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X												
SL-060-SASC-SB-9.0-10.0	11.23.10	1410	soil	none	1 - 16 oz. jar												X	X		X	X	X	X		X			
SL-060-SASC-SB-9.0-10.0	11.23.10	1410	soil	none	3 - 4 oz. jars				X																X			
SL-060-SASC-SB-9.0-10.0	11.23.10	1410	soil	none	1 - 4 oz. amber jar													X										
SL-062-SASC-SB-2.5-3.5	11.23.10	1042	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X												
SL-076-SASC-SB-3.0-4.0	11.23.10	1515	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X												
SL-076-SASC-SB-3.0-4.0	11.23.10	1515	soil	none	1 - 16 oz. jar												X	X		X	X	X	X		X			
SL-076-SASC-SB-3.0-4.0	11.23.10	1515	soil	none	3 - 4 oz. jars				X																X			
SL-076-SASC-SB-3.0-4.0	11.23.10	1515	soil	none	1 - 4 oz. amber jar													X										
						<i>Sully Samantoni</i>																						
						<i>11/23/10</i>																						
Relinquished by: (Signature) <i>Sully Samantoni</i>						Date/Time 11.23.10 1630		Received for Laboratory by: (Signature) <i>BZM</i>						Date/Time 11/24/10 950								Laboratory: Lancaster Laboratories, Inc.						
Received by: (Signature)						Date/Time		Airbill No. 00732992						Tracking Number 869514314694						Cooler 1								

13013 1222702 6149392-401

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																		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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EFH EPA 8015B Mod.	*Metals EPA 6010/60208&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C		**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohol EPA 8015B	**Glycols EPA 8015B	**Terphenyls EPA 8015B				
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																													
EB10-SA5C-112310	11.23.10	1215	water	HCl	2 - 1 liter amber					X																			X					
EB10-SA5C-112310	11.23.10	1215	water	none	3 - 1 liter amber																	X	X						plus 1 extra amber bottle					
EB10-SA5C-112310	11.23.10	1215	water	none	1-250 ml glass jar															X														
SL-077-SA5C-SB-3.0-4.0	11.23.10	1130	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X																		
SL-077-SA5C-SB-3.0-4.0	11.23.10	1130	soil	none	1 - 16 oz. jar														X	X		X	X	X	X			X						
SL-077-SA5C-SB-3.0-4.0	11.23.10	1130	soil	none	3 - 4 oz. jars					X																X	X							
SL-077-SA5C-SB-3.0-4.0	11.23.10	1130	soil	none	1 - 4 oz. amber jar															X														
 11/23/10																																		

Relinquished by: (Signature) 	Date/Time 11.23.10 1630	Received for Laboratory by: (Signature) 	Date/Time 11/24/10 950	Laboratory: Lancaster Laboratories, Inc.
Received by: (Signature) FedEx	Date/Time	Airbill No. 00732992	Tracking Number 869514314683	Cooler 3

13013

1222702

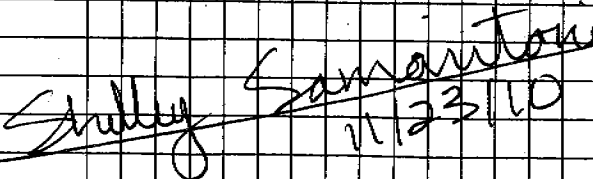
6149392-401

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCS EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EFH EPA 8015B Mod.	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A		**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohols EPA 8015B	**Glycols EPA 8015B	**Terphenyls EPA 8015B	
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																										
EB10-SA5C-112310	11.23.10	1215	water	acetate buffer	1-40 ml amber vial																X										
EB10-SA5C-112310	11.23.10	1215	water	none	2 - 40 ml clear glass															X											
EB10-SA5C-112310	11.23.10	1215	water	none	2 - 40 ml clear glass																						X				
EB08-SA5C-111610	11.23.10	1215	water	HCl	3 - 40 ml VOA vials	X	X																								
EB10-SA5C-112310	11.23.10	1215	water	HCl	3-40 ml vials			X																							
EB10-SA5C-112310	11.23.10	1215	water	HCl	2-40 ml vials																					X					
TB-112310	11.23.10	1500	water	HCl	4-40 ml vials	X	X	X																						Trip Blank	
SL-077-SA5C-SB-3.5	11.23.10	1125	soil	none	4 encore samplers	X	X	X																						Short 1 encore sampler, VOCs & 1,4-Dioxane have priority	
SL-065-SA5C-SB-3.0MS	11.23.10	0930	soil	none	12 encore samplers	X	X																							MS/MSD	
SL-062-SA5C-SB-3.0	11.23.10	1038	soil	none	4 encore samplers	X	X																								
SL-065-SA5C-SB-2.5-3.5MS	11.23.10	0936	soil	none	6 - 16 oz. jars			X			X	X	X	X	X	X														MS/MSD	
SL-076-SA5C-SB-3.5	11.23.10	1511	soil	none	5 encore samplers	X	X	X																							
SL-060-SA5C-SB-4.5	11.23.10	1400	soil	none	5 encore samplers	X	X	X																							
<i>Sully Samantoni</i> 11/23/10																															
Relinquished by: (Signature) <i>Sully Samantoni</i>		Date/Time 11.23.10 1630		Received for Laboratory by: (Signature) <i>M.M.</i>		Date/Time 11/24/10 956														Laboratory: Lancaster Laboratories, Inc.											
Received by: (Signature) <i>FedEx</i>		Date/Time		Airbill No. 00732992		Tracking Number 869514314709														Cooler 4											

13013 1222702 6149392-401

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD															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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH g/mo/d EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A		**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohol/Terphenyls/Glycol EPA 8015B			
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																									
EB10-SA5C-112310	11.23.10	1215	water	none	6 - 1 Liter amber glass			X					X	X												plus 2 extra amber bottles				
EB10-SA5C-112310	11.23.10	1215	water	none	1 - 500 mL poly bottle						X	X			X															
EB10-SA5C-112310	11.23.10	1215	water	HNO ₃	1 - 500 mL poly bottle				X																					
EB10-SA5C-112310	11.23.10	1215	water	NaOH	1-500 ml poly																		X							
EB10-SA5C-112310	11.23.10	1215	water	none	1-500 ml poly																			X						
 11/23/10																														
Relinquished by: (Signature) <i>Shelly Samantoni</i>		Date/Time 11.23.10 1630		Received for Laboratory by: (Signature) <i>MM LB</i>		Date/Time 11/23/10 950																	Laboratory: Lancaster Laboratories, Inc.							
Received by: (Signature) <i>FedEx</i>		Date/Time		Airbill No. 00732992		Tracking Number 869514314672																	Cooler 2							

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/26/2010
Group Number: 1222909
SDG: DX010
PO Number: 1203-004-007-AL
Release Number: TRACKING #11667
State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-063-SA5C-SB-4.0-5.0 Soil	6150590
SL-064-SA5C-SB-4.0-5.0 Soil	6150591
SL-061-SA5C-SB-4.0-5.0 Soil	6150592
SL-061-SA5C-SB-9.0-10.0 Soil	6150593

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

ELECTRONIC

COPY TO

1 COPY TO

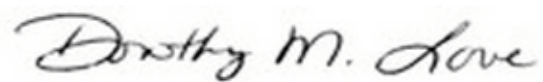
CDM Federal Services Program

Data Package Group

Attn: Todd Burgess

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

Respectfully Submitted,



Dorothy M. Love
Group Leader



Analysis Report

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Page 1 of 4

Sample Description: SL-063-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-063-SA5C-SB-4.0-5.0

LLI Sample # SW 6150590
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 09:18 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL063 SDG#: DX010-14

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	28a Total Solids 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-063-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-063-SA5C-SB-4.0-5.0

LLI Sample # SW 6150590
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 09:18 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL063 SDG#: DX010-14

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	0.0322 J	0.0182	1.12	1
11031	12378-PeCDD	40321-76-4	0.0848 JQ	0.0245	5.59	1
11031	123478-HxCDD	39227-28-6	0.0661 JBQ	0.0196	5.59	1
11031	123678-HxCDD	57653-85-7	0.0848 JBQ	0.0198	5.59	1
11031	123789-HxCDD	19408-74-3	0.0993 JB	0.0195	5.59	1
11031	1234678-HpCDD	35822-46-9	0.383 JB	0.0264	5.59	1
11031	OCDD	3268-87-9	0.820 JB	0.0377	11.2	1
11031	2378-TCDF	51207-31-9	0.0263 JBQ	0.0178	1.12	1
11031	12378-PeCDF	57117-41-6	0.0939 JBQ	0.0167	5.59	1
11031	23478-PeCDF	57117-31-4	0.180 JBQ	0.0152	5.59	1
11031	123478-HxCDF	70648-26-9	0.181 JB	0.0242	5.59	1
11031	123678-HxCDF	57117-44-9	0.161 JB	0.0230	5.59	1
11031	123789-HxCDF	72918-21-9	0.145 JBQ	0.0240	5.59	1
11031	234678-HxCDF	60851-34-5	0.231 JBQ	0.0232	5.59	1
11031	1234678-HpCDF	67562-39-4	0.915 JB	0.0143	5.59	1
11031	1234789-HpCDF	55673-89-7	0.155 JBQ	0.0170	5.59	1
11031	OCDF	39001-02-0	0.543 JBQ	0.0312	11.2	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	65	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	56	17 - 157
13C12-2378-TCDF	65	24 - 169
13C12-12378-PeCDF	71	24 - 185
13C12-23478-PeCDF	72	21 - 178
13C12-123478-HxCDF	67	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	51	17 - 157
13C12-1278-TCDD (CRS)	72	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-063-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-063-SA5C-SB-4.0-5.0

LLI Sample # SW 6150590
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 09:18 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL063 SDG#: DX010-14

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-063-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-063-SA5C-SB-4.0-5.0

LLI Sample # SW 6150590
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 09:18 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL063 SDG#: DX010-14

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	10345001	12/17/2010 20:41	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1



Analysis Report

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Sample Description: SL-064-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-064-SA5C-SB-4.0-5.0

LLI Sample # SW 6150591
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 10:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL064 SDG#: DX010-15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids by 160.3	n.a.	13.3	0.50	0.50	1

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

Sample Description: SL-064-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-064-SA5C-SB-4.0-5.0

LLI Sample # SW 6150591
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 10:39 by PH

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Suite 210
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Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL064 SDG#: DX010-15

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	0.0332 JQ	0.0173	1.15	1
11031	12378-PeCDD	40321-76-4	0.0550 JQ	0.0238	5.77	1
11031	123478-HxCDD	39227-28-6	0.0231 JB	0.0166	5.77	1
11031	123678-HxCDD	57653-85-7	0.0400 JBQ	0.0166	5.77	1
11031	123789-HxCDD	19408-74-3	0.0551 JBQ	0.0170	5.77	1
11031	1234678-HpCDD	35822-46-9	0.304 JB	0.0257	5.77	1
11031	OCDD	3268-87-9	0.894 JB	0.0287	11.5	1
11031	2378-TCDF	51207-31-9	0.0173 U	0.0173	1.15	1
11031	12378-PeCDF	57117-41-6	0.0427 JBQ	0.0161	5.77	1
11031	23478-PeCDF	57117-31-4	0.120 JBQ	0.0148	5.77	1
11031	123478-HxCDF	70648-26-9	0.161 JB	0.0249	5.77	1
11031	123678-HxCDF	57117-44-9	0.150 JB	0.0249	5.77	1
11031	123789-HxCDF	72918-21-9	0.0755 JB	0.0255	5.77	1
11031	234678-HxCDF	60851-34-5	0.209 JBQ	0.0247	5.77	1
11031	1234678-HpCDF	67562-39-4	0.899 JBQ	0.0150	5.77	1
11031	1234789-HpCDF	55673-89-7	0.128 JBQ	0.0183	5.77	1
11031	OCDF	39001-02-0	0.528 JB	0.0319	11.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	69	25 - 181
13C12-123478-HxCDD	64	32 - 141
13C12-123678-HxCDD	60	28 - 130
13C12-123789-HxCDD	62	28 - 130
13C12-1234678-HpCDD	61	23 - 140
13C12-OCDD	53	17 - 157
13C12-2378-TCDF	63	24 - 169
13C12-12378-PeCDF	68	24 - 185
13C12-23478-PeCDF	70	21 - 178
13C12-123478-HxCDF	60	26 - 152
13C12-123678-HxCDF	59	26 - 123
13C12-234678-HxCDF	59	28 - 136
13C12-123789-HxCDF	65	29 - 147
13C12-1234678-HpCDF	61	28 - 143
13C12-1234789-HpCDF	57	26 - 138
13C12-OCDF	48	17 - 157
13C12-1278-TCDD (CRS)	69	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-064-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-064-SA5C-SB-4.0-5.0

LLI Sample # SW 6150591
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 10:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL064 SDG#: DX010-15

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-064-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-064-SA5C-SB-4.0-5.0

LLI Sample # SW 6150591
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 10:39 by PH

CDM Federal Programs Corp.
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Suite 210
Chantilly VA 20151

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL064 SDG#: DX010-15

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	10345001	12/17/2010 21:38	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-061-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-4.0-5.0

LLI Sample # SW 6150592
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:34 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL061 SDG#: DX010-16

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	28a Total Solids by 160.3	n.a.	9.5	0.50	0.50	1

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

Sample Description: SL-061-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-4.0-5.0

LLI Sample # SW 6150592
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:34 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL061 SDG#: DX010-16

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	0.0397 JQ	0.0138	1.10	1
11031	12378-PeCDD	40321-76-4	0.0826 J	0.0228	5.52	1
11031	123478-HxCDD	39227-28-6	0.0409 JBQ	0.0260	5.52	1
11031	123678-HxCDD	57653-85-7	0.256 JB	0.0255	5.52	1
11031	123789-HxCDD	19408-74-3	0.247 JB	0.0249	5.52	1
11031	1234678-HpCDD	35822-46-9	2.55 JB	0.0274	5.52	1
11031	OCDD	3268-87-9	27.9 B	0.0265	11.0	1
11031	2378-TCDF	51207-31-9	0.0266 U	0.0266	1.10	1
11031	12378-PeCDF	57117-41-6	0.110 JB	0.0178	5.52	1
11031	23478-PeCDF	57117-31-4	0.181 JB	0.0168	5.52	1
11031	123478-HxCDF	70648-26-9	0.130 JBQ	0.0306	5.52	1
11031	123678-HxCDF	57117-44-9	0.182 JBQ	0.0291	5.52	1
11031	123789-HxCDF	72918-21-9	0.247 JB	0.0313	5.52	1
11031	234678-HxCDF	60851-34-5	0.186 JB	0.0296	5.52	1
11031	1234678-HpCDF	67562-39-4	0.946 JB	0.0154	5.52	1
11031	1234789-HpCDF	55673-89-7	0.0783 JBQ	0.0187	5.52	1
11031	OCDF	39001-02-0	0.652 JB	0.0225	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	73	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	54	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-061-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-4.0-5.0

LLI Sample # SW 6150592
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:34 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL061 SDG#: DX010-16

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-061-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-4.0-5.0

LLI Sample # SW 6150592
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:34 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL061 SDG#: DX010-16

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	10345001	12/17/2010 22:35	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Sample Description: SL-061-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-9.0-10.0

LLI Sample # SW 6150593
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL619 SDG#: DX010-17*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 2.9	% 0.50	% 0.50	1

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

Sample Description: SL-061-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-9.0-10.0

LLI Sample # SW 6150593
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL619 SDG#: DX010-17*

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	0.0138 U	0.0138	1.03	1
11031	12378-PeCDD	40321-76-4	0.0577 J	0.0216	5.15	1
11031	123478-HxCDD	39227-28-6	0.0701 JBQ	0.0280	5.15	1
11031	123678-HxCDD	57653-85-7	0.300 JBQ	0.0292	5.15	1
11031	123789-HxCDD	19408-74-3	0.139 JBQ	0.0282	5.15	1
11031	1234678-HpCDD	35822-46-9	24.3 B	0.0394	5.15	1
11031	OCDD	3268-87-9	184 B	0.0437	10.3	1
11031	2378-TCDF	51207-31-9	0.0371 JBQ	0.0184	1.03	1
11031	12378-PeCDF	57117-41-6	0.0844 JBQ	0.0145	5.15	1
11031	23478-PeCDF	57117-31-4	0.173 JB	0.0134	5.15	1
11031	123478-HxCDF	70648-26-9	0.130 JBQ	0.0235	5.15	1
11031	123678-HxCDF	57117-44-9	0.143 JB	0.0217	5.15	1
11031	123789-HxCDF	72918-21-9	0.0267 U	0.0267	5.15	1
11031	234678-HxCDF	60851-34-5	0.211 JBQ	0.0231	5.15	1
11031	1234678-HpCDF	67562-39-4	1.36 JB	0.0145	5.15	1
11031	1234789-HpCDF	55673-89-7	0.118 JB	0.0180	5.15	1
11031	OCDF	39001-02-0	1.53 JB	0.0249	10.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	85	25 - 181
13C12-123478-HxCDD	80	32 - 141
13C12-123678-HxCDD	74	28 - 130
13C12-123789-HxCDD	77	28 - 130
13C12-1234678-HpCDD	78	23 - 140
13C12-OCDD	68	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	80	24 - 185
13C12-23478-PeCDF	82	21 - 178
13C12-123478-HxCDF	76	26 - 152
13C12-123678-HxCDF	75	26 - 123
13C12-234678-HxCDF	74	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	78	28 - 143
13C12-1234789-HpCDF	71	26 - 138
13C12-OCDF	61	17 - 157
13C12-1278-TCDD (CRS)	81	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-061-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-9.0-10.0

LLI Sample # SW 6150593
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL619 SDG#: DX010-17*

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-061-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-061-SA5C-SB-9.0-10.0

LLI Sample # SW 6150593
LLI Group # 1222909
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/24/2010 12:39 by PH

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

Submitted: 11/26/2010 09:30

Reported: 12/30/2010 18:24

DL619 SDG#: DX010-17*

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	10345001	12/17/2010 23:31	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	2	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 06:24 PM

Group Number: 1222909

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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6150590				100		80-120		
Batch number: 10347162401A 28a Total Solids by 160.3	Sample number(s): 6150591-6150593				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: 10345001	Sample number(s): 6150590-6150593								
2378-TCDD	0.0176 U	0.0176	1.00	ng/kg	93		67-158		
12378-PeCDD	0.0220 U	0.0220	5.00	ng/kg	97		70-142		
123478-HxCDD	0.0308 J	0.0152	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0322 J	0.0149	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0318 J	0.0160	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.155 J	0.0190	5.00	ng/kg	95		70-140		
OCDD	0.240 J	0.0262	10.0	ng/kg	95		78-144		
2378-TCDF	0.0161 J	0.0143	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0487 J	0.0150	5.00	ng/kg	96		80-134		
23478-PeCDF	0.110 J	0.0133	5.00	ng/kg	95		68-160		
123478-HxCDF	0.107 J	0.0166	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0617 J	0.0162	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0771 J	0.0198	5.00	ng/kg	96		78-130		
234678-HxCDF	0.116 J	0.0166	5.00	ng/kg	95		70-156		
1234678-HpCDF	0.419 J	0.0116	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0702 J	0.0143	5.00	ng/kg	96		78-138		
OCDF	0.250 J	0.0204	10.0	ng/kg	95		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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6150590 BKG: P149366					4.3	4.1	4	20
Batch number: 10347162401A 28a Total Solids by 160.3	Sample number(s): 6150591-6150593 BKG: P154843					21.9	30.1	32*	20
Batch number: 10345001 2378-TCDD	Sample number(s): 6150590-6150593 UNSPK: P149398					91	91	67-158	0

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:24 PM

Group Number: 1222909

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
12378-PeCDD	97	96	70-142	0	25				
123478-HxCDD	98	99	70-164	1	25				
123678-HxCDD	96	97	76-134	0	25				
123789-HxCDD	98	96	64-162	2	25				
1234678-HpCDD	98	95	70-140	3	25				
OCDD	98	96	78-144	3	25				
2378-TCDF	93	94	75-158	1	25				
12378-PeCDF	96	96	80-134	1	25				
23478-PeCDF	96	95	68-160	1	25				
123478-HxCDF	96	96	72-134	0	25				
123678-HxCDF	96	95	84-130	1	25				
123789-HxCDF	96	95	78-130	0	25				
234678-HxCDF	95	96	70-156	0	25				
1234678-HpCDF	97	94	82-122	3	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	97	95	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: 10345001

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6150590	65	72	67	66	67	72
6150591	61	70	60	59	59	65
6150592	73	76	69	68	70	72
6150593	75	82	76	75	74	71
Blank	59	75	72	71	70	65
MS	69	73	68	66	67	70
MSD	59	64	60	59	60	62
OPR	58	68	64	64	65	66
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
6150590	67	62	51	72	73	70
6150591	61	57	48	69	69	64
6150592	69	66	54	76	76	73
6150593	78	71	61	81	85	80
Blank	75	66	56	69	76	75
MS	67	57	45	74	74	72
MSD	61	56	49	65	66	63
OPR	71	65	56	62	70	68
Limits:	28-143	26-138	17-157	35-197	25-181	32-141

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:24 PM

Group Number: 1222909

Surrogate Quality Control

	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF
6150590	66	70	67	56	65	71
6150591	60	62	61	53	63	68
6150592	69	72	70	61	74	75
6150593	74	77	78	68	76	80
Blank	71	70	73	63	60	72
MS	67	69	66	57	70	73
MSD	59	62	62	56	59	62
OPR	66	68	71	64	58	68
Limits:	28-130	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.

sample# 6150590-93

[illegible]

acct# 13013 Cp# 1222909

sample# 6150590-93

CHAIN OF CUSTODY RECORD

CDM SSFL AREA IV COLLOCATED SOIL SAMPLING						CHAIN OF CUSTODY RECORD																		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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260S/M	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-EFH EPA 8015B Mod.	TPH-GRO EPA 8015B	*Metals EPA 6010/6020B&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8330A	**Cyanide EPA 9012B		**pH EPA 9045C	**Alcohols/Glycols EPA 8015B	**Terphenyls EPA 8015B				
SAMPLE NUMBER	DATE	TIME	MATRIX	Preservative	Type & No. of Containers																										
SL-061-SA5C-SB-4.0-5.0	11.24.10	1234	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X															
SL-061-SA5C-SB-4.0-5.0	11.24.10	1234	soil	none	1 - 16 oz. jar												X	X		X	X	X	X		X						
SL-061-SA5C-SB-4.0-5.0	11.24.10	1234	soil	none	3 - 4 oz. jars				X																X						
SL-061-SA5C-SB-4.0-5.0	11.24.10	1234	soil	none	1 - 4 oz. amber jar														X												
SL-061-SA5C-SB-9.0-10.0	11.24.10	1239	soil	none	2 - 16 oz. jars			X			X	X	X	X	X	X															
SL-061-SA5C-SB-9.0-10.0	11.24.10	1239	soil	none	1 - 16 oz. jar												X	X		X	X	X	X		X						
SL-061-SA5C-SB-9.0-10.0	11.24.10	1239	soil	none	2 - 4 oz. jars																				X						
SL-061-SA5C-SB-9.0-10.0	11.24.10	1239	soil	none	2 - 4 oz. amber jar			X											X												
Shelly Samantoni 11/24/10																															
Relinquished by: (Signature) Shelly Samantoni		Date/Time 11.24.10 1500		Received for Laboratory by: (Signature) [Signature]		Date/Time 11/24/10 930																				Laboratory: Lancaster Laboratories, Inc.					
Received by: (Signature) Fed Ex		Date/Time		Airbill No. 00732992		Tracking Number 869514314710																				Cooler 1					

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.

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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 30, 2010

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 11/30/2010

Group Number: 1223088

SDG: DX011

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

Client Sample DescriptionSL-058-SA5C-SB-3.0-4.0 Soil
SL-059-SA5C-SB-9.0-10.0 Soil
SL-059-SA5C-SB-1.0-2.0 Soil
SL-071-SA5C-SB-9.0-10.0 Soil
SL-075-SA5C-SB-9.0-10.0 Soil
SL-071-SA5C-SB-4.0-5.0 Soil
SL-075-SA5C-SB-4.0-5.0 SoilLancaster Labs (LLI) #6151525
6151526
6151527
6151528
6151529
6151530
6151531

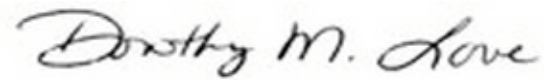
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

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,



Dorothy M. Love
Group Leader



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-058-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-058-SA5C-SB-3.0-4.0

LLI Sample # SW 6151525
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 09:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5934 SDG#: DX011-01

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	28a Total Solids by 160.3	n.a.	4.5	0.50	0.50	1

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

Sample Description: SL-058-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-058-SA5C-SB-3.0-4.0

LLI Sample # SW 6151525
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 09:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5934 SDG#: DX011-01

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	0.00754 U	0.00754	1.05	1
11031	12378-PeCDD	40321-76-4	0.0575 JBQ	0.0126	5.24	1
11031	123478-HxCDD	39227-28-6	0.0129 U	0.0129	5.24	1
11031	123678-HxCDD	57653-85-7	0.299 JB	0.0132	5.24	1
11031	123789-HxCDD	19408-74-3	0.520 JB	0.0128	5.24	1
11031	1234678-HpCDD	35822-46-9	0.465 JB	0.0154	5.24	1
11031	OCDD	3268-87-9	3.60 JB	0.0198	10.5	1
11031	2378-TCDF	51207-31-9	0.0275 JBQ	0.0112	1.05	1
11031	12378-PeCDF	57117-41-6	0.0732 JB	0.00838	5.24	1
11031	23478-PeCDF	57117-31-4	0.107 JB	0.00754	5.24	1
11031	123478-HxCDF	70648-26-9	0.0697 JBQ	0.0123	5.24	1
11031	123678-HxCDF	57117-44-9	0.120 JB	0.0119	5.24	1
11031	123789-HxCDF	72918-21-9	0.359 JB	0.0130	5.24	1
11031	234678-HxCDF	60851-34-5	0.108 JB	0.0118	5.24	1
11031	1234678-HpCDF	67562-39-4	0.423 JB	0.0318	5.24	1
11031	1234789-HpCDF	55673-89-7	0.0499 JB	0.0393	5.24	1
11031	OCDF	39001-02-0	0.357 JB	0.0312	10.5	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	79	25 - 164
13C12-12378-PeCDD	87	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	73	28 - 130
13C12-123789-HxCDD	76	28 - 130
13C12-1234678-HpCDD	76	23 - 140
13C12-OCDD	65	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	82	24 - 185
13C12-23478-PeCDF	83	21 - 178
13C12-123478-HxCDF	72	26 - 152
13C12-123678-HxCDF	69	26 - 123
13C12-234678-HxCDF	72	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	69	26 - 138
13C12-OCDF	58	17 - 157
13C12-1278-TCDD (CRS)	82	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

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Page 3 of 4

Sample Description: SL-058-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-058-SA5C-SB-3.0-4.0

LLI Sample # SW 6151525
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 09:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5934 SDG#: DX011-01

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-058-SA5C-SB-3.0-4.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-058-SA5C-SB-3.0-4.0

LLI Sample # SW 6151525
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 09:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5934 SDG#: DX011-01

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	10340002	12/16/2010 02:19	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-059-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-9.0-10.0

LLI Sample # SW 6151526
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:15 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5991 SDG#: DX011-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids by 160.3	n.a.	16.3	0.50	0.50	1

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

Sample Description: SL-059-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-9.0-10.0

LLI Sample # SW 6151526
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:15 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5991 SDG#: DX011-02

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	0.0129 U	0.0129	1.19	1
11031	12378-PeCDD	40321-76-4	0.0220 JQ	0.0167	5.97	1
11031	123478-HxCDD	39227-28-6	0.0217 JBQ	0.0146	5.97	1
11031	123678-HxCDD	57653-85-7	0.0262 JB	0.0152	5.97	1
11031	123789-HxCDD	19408-74-3	0.0287 JBQ	0.0148	5.97	1
11031	1234678-HpCDD	35822-46-9	0.312 JB	0.0216	5.97	1
11031	OCDD	3268-87-9	0.791 JB	0.0228	11.9	1
11031	2378-TCDF	51207-31-9	0.0236 JBQ	0.0147	1.19	1
11031	12378-PeCDF	57117-41-6	0.0460 JBQ	0.0123	5.97	1
11031	23478-PeCDF	57117-31-4	0.123 JBQ	0.0112	5.97	1
11031	123478-HxCDF	70648-26-9	0.142 JB	0.0194	5.97	1
11031	123678-HxCDF	57117-44-9	0.0999 JBQ	0.0183	5.97	1
11031	123789-HxCDF	72918-21-9	0.0979 JBQ	0.0195	5.97	1
11031	234678-HxCDF	60851-34-5	0.174 JBQ	0.0185	5.97	1
11031	1234678-HpCDF	67562-39-4	0.861 JB	0.0121	5.97	1
11031	1234789-HpCDF	55673-89-7	0.108 JBQ	0.0151	5.97	1
11031	OCDF	39001-02-0	0.416 JB	0.0225	11.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	75	25 - 164
13C12-12378-PeCDD	80	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	61	17 - 157
13C12-2378-TCDF	76	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	78	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	68	28 - 136
13C12-123789-HxCDF	71	29 - 147
13C12-1234678-HpCDF	68	28 - 143
13C12-1234789-HpCDF	64	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	78	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-059-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-9.0-10.0

LLI Sample # SW 6151526
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:15 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5991 SDG#: DX011-02

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-059-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-9.0-10.0

LLI Sample # SW 6151526
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:15 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5991 SDG#: DX011-02

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	10345001	12/18/2010 00:28	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10345001	12/11/2010 11:45	Deborah M Zimmerman	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Sample Description: SL-059-SA5C-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-1.0-2.0

LLI Sample # SW 6151527
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:10 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5912 SDG#: DX011-03

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	Wet Chemistry 28a Total Solids by 160.3	EPA 160.3 modified n.a.	% 9.3	% 0.50	% 0.50	1

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

Sample Description: SL-059-SA5C-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-1.0-2.0

LLI Sample # SW 6151527
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:10 by PH

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
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Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5912 SDG#: DX011-03

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	0.0184 JBQ	0.00926	1.10	1
11031	12378-PeCDD	40321-76-4	0.0146 U	0.0146	5.51	1
11031	123478-HxCDD	39227-28-6	0.0343 JBQ	0.0136	5.51	1
11031	123678-HxCDD	57653-85-7	0.288 JB	0.0135	5.51	1
11031	123789-HxCDD	19408-74-3	0.434 JB	0.0143	5.51	1
11031	1234678-HpCDD	35822-46-9	1.10 JB	0.0143	5.51	1
11031	OCDD	3268-87-9	6.82 JB	0.0183	11.0	1
11031	2378-TCDF	51207-31-9	0.0546 JBQ	0.0173	1.10	1
11031	12378-PeCDF	57117-41-6	0.0920 JBQ	0.0107	5.51	1
11031	23478-PeCDF	57117-31-4	0.169 JB	0.00992	5.51	1
11031	123478-HxCDF	70648-26-9	0.139 JB	0.0151	5.51	1
11031	123678-HxCDF	57117-44-9	0.116 JB	0.0148	5.51	1
11031	123789-HxCDF	72918-21-9	0.396 JB	0.0162	5.51	1
11031	234678-HxCDF	60851-34-5	0.178 JB	0.0157	5.51	1
11031	1234678-HpCDF	67562-39-4	0.651 JB	0.0189	5.51	1
11031	1234789-HpCDF	55673-89-7	0.0953 JBQ	0.0237	5.51	1
11031	OCDF	39001-02-0	0.482 JB	0.0135	11.0	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	72	32 - 141
13C12-123678-HxCDD	68	28 - 130
13C12-123789-HxCDD	69	28 - 130
13C12-1234678-HpCDD	69	23 - 140
13C12-OCDD	59	17 - 157
13C12-2378-TCDF	69	24 - 169
13C12-12378-PeCDF	76	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	66	26 - 123
13C12-234678-HxCDF	66	28 - 136
13C12-123789-HxCDF	69	29 - 147
13C12-1234678-HpCDF	69	28 - 143
13C12-1234789-HpCDF	63	26 - 138
13C12-OCDF	54	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
- Q EMPC - Estimated Maximum Possible Concentration

Sample Description: SL-059-SA5C-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-1.0-2.0

LLI Sample # SW 6151527
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:10 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5912 SDG#: DX011-03

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-059-SA5C-SB-1.0-2.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-059-SA5C-SB-1.0-2.0

LLI Sample # SW 6151527
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 11:10 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D5912 SDG#: DX011-03

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	10340002	12/16/2010 06:18	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Sample Description: SL-071-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-9.0-10.0

LLI Sample # SW 6151528
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:26 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7191 SDG#: DX011-04

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids by 160.3	n.a.	11.3	0.50	0.50	1

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

Sample Description: SL-071-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-9.0-10.0

LLI Sample # SW 6151528
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:26 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7191 SDG#: DX011-04

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	0.0134 JBQ	0.00722	1.13	1
11031	12378-PeCDD	40321-76-4	0.0483 JB	0.00992	5.64	1
11031	123478-HxCDD	39227-28-6	0.0282 JB	0.0105	5.64	1
11031	123678-HxCDD	57653-85-7	0.0424 JB	0.0103	5.64	1
11031	123789-HxCDD	19408-74-3	0.0420 JBQ	0.0112	5.64	1
11031	1234678-HpCDD	35822-46-9	0.167 JB	0.0114	5.64	1
11031	OCDD	3268-87-9	0.437 JB	0.0144	11.3	1
11031	2378-TCDF	51207-31-9	0.0227 JBQ	0.00631	1.13	1
11031	12378-PeCDF	57117-41-6	0.0583 JBQ	0.00575	5.64	1
11031	23478-PeCDF	57117-31-4	0.0935 JB	0.00530	5.64	1
11031	123478-HxCDF	70648-26-9	0.0804 JBQ	0.0107	5.64	1
11031	123678-HxCDF	57117-44-9	0.0660 JB	0.0104	5.64	1
11031	123789-HxCDF	72918-21-9	0.0745 JBQ	0.0115	5.64	1
11031	234678-HxCDF	60851-34-5	0.106 JB	0.0105	5.64	1
11031	1234678-HpCDF	67562-39-4	0.370 JB	0.00812	5.64	1
11031	1234789-HpCDF	55673-89-7	0.0671 JBQ	0.0106	5.64	1
11031	OCDF	39001-02-0	0.207 JB	0.0118	11.3	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	83	25 - 181
13C12-123478-HxCDD	76	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	73	23 - 140
13C12-OCDD	63	17 - 157
13C12-2378-TCDF	74	24 - 169
13C12-12378-PeCDF	81	24 - 185
13C12-23478-PeCDF	81	21 - 178
13C12-123478-HxCDF	70	26 - 152
13C12-123678-HxCDF	70	26 - 123
13C12-234678-HxCDF	70	28 - 136
13C12-123789-HxCDF	70	29 - 147
13C12-1234678-HpCDF	74	28 - 143
13C12-1234789-HpCDF	65	26 - 138
13C12-OCDF	55	17 - 157
13C12-1278-TCDD (CRS)	81	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-071-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-9.0-10.0

LLI Sample # SW 6151528
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:26 by PH

CDM Federal Programs Corp.
14420 Albemarle Point Place
Suite 210
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Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7191 SDG#: DX011-04

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-071-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-9.0-10.0

LLI Sample # SW 6151528
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:26 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7191 SDG#: DX011-04

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	10340002	12/16/2010 07:15	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Sample Description: SL-075-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-9.0-10.0

LLI Sample # SW 6151529
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7591 SDG#: DX011-05

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
11625	28a Total Solids by 160.3	n.a.	14.1	0.50	0.50	1

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

Sample Description: SL-075-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-9.0-10.0

LLI Sample # SW 6151529
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7591 SDG#: DX011-05

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	0.0292 JBQ	0.00675	1.16	1
11031	12378-PeCDD	40321-76-4	0.113 JB	0.00990	5.82	1
11031	123478-HxCDD	39227-28-6	0.0445 JBQ	0.0113	5.82	1
11031	123678-HxCDD	57653-85-7	0.0800 JB	0.0111	5.82	1
11031	123789-HxCDD	19408-74-3	0.0648 JBQ	0.0111	5.82	1
11031	1234678-HpCDD	35822-46-9	0.232 JBQ	0.0102	5.82	1
11031	OCDD	3268-87-9	0.462 JB	0.0153	11.6	1
11031	2378-TCDF	51207-31-9	0.0432 JBQ	0.00605	1.16	1
11031	12378-PeCDF	57117-41-6	0.145 JB	0.00652	5.82	1
11031	23478-PeCDF	57117-31-4	0.182 JB	0.00605	5.82	1
11031	123478-HxCDF	70648-26-9	0.156 JB	0.00885	5.82	1
11031	123678-HxCDF	57117-44-9	0.139 JB	0.00838	5.82	1
11031	123789-HxCDF	72918-21-9	0.101 JBQ	0.0100	5.82	1
11031	234678-HxCDF	60851-34-5	0.170 JBQ	0.00850	5.82	1
11031	1234678-HpCDF	67562-39-4	0.554 JB	0.00757	5.82	1
11031	1234789-HpCDF	55673-89-7	0.0853 JBQ	0.00943	5.82	1
11031	OCDF	39001-02-0	0.294 JBQ	0.0104	11.6	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	70	25 - 164
13C12-12378-PeCDD	79	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	69	28 - 130
13C12-123789-HxCDD	71	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	75	24 - 185
13C12-23478-PeCDF	76	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	66	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	58	17 - 157
13C12-1278-TCDD (CRS)	75	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

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Page 3 of 4

Sample Description: SL-075-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-9.0-10.0

LLI Sample # SW 6151529
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7591 SDG#: DX011-05

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-075-SA5C-SB-9.0-10.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-9.0-10.0

LLI Sample # SW 6151529
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:45 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7591 SDG#: DX011-05

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	10340002	12/16/2010 08:12	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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



Analysis Report

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Page 1 of 4

Sample Description: SL-071-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-4.0-5.0

LLI Sample # SW 6151530
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:22 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7145 SDG#: DX011-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	17.2	0.50	0.50	1

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

Sample Description: SL-071-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-4.0-5.0

LLI Sample # SW 6151530
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:22 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7145 SDG#: DX011-06

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	0.00580 U	0.00580	1.21	1
11031	12378-PeCDD	40321-76-4	0.0558 JBQ	0.0105	6.04	1
11031	123478-HxCDD	39227-28-6	0.0170 JBQ	0.00906	6.04	1
11031	123678-HxCDD	57653-85-7	0.208 JBQ	0.00918	6.04	1
11031	123789-HxCDD	19408-74-3	0.302 JB	0.00918	6.04	1
11031	1234678-HpCDD	35822-46-9	0.194 JB	0.00942	6.04	1
11031	OCDD	3268-87-9	0.555 JB	0.0118	12.1	1
11031	2378-TCDF	51207-31-9	0.0147 JBQ	0.00616	1.21	1
11031	12378-PeCDF	57117-41-6	0.0615 JBQ	0.00568	6.04	1
11031	23478-PeCDF	57117-31-4	0.0938 JB	0.00519	6.04	1
11031	123478-HxCDF	70648-26-9	0.0745 JB	0.00930	6.04	1
11031	123678-HxCDF	57117-44-9	0.0691 JBQ	0.00845	6.04	1
11031	123789-HxCDF	72918-21-9	0.394 JB	0.00930	6.04	1
11031	234678-HxCDF	60851-34-5	0.0919 JBQ	0.00857	6.04	1
11031	1234678-HpCDF	67562-39-4	0.437 JB	0.00604	6.04	1
11031	1234789-HpCDF	55673-89-7	0.0642 JBQ	0.00773	6.04	1
11031	OCDF	39001-02-0	0.230 JB	0.00845	12.1	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	72	25 - 164
13C12-12378-PeCDD	81	25 - 181
13C12-123478-HxCDD	74	32 - 141
13C12-123678-HxCDD	71	28 - 130
13C12-123789-HxCDD	72	28 - 130
13C12-1234678-HpCDD	74	23 - 140
13C12-OCDD	64	17 - 157
13C12-2378-TCDF	71	24 - 169
13C12-12378-PeCDF	77	24 - 185
13C12-23478-PeCDF	77	21 - 178
13C12-123478-HxCDF	69	26 - 152
13C12-123678-HxCDF	68	26 - 123
13C12-234678-HxCDF	69	28 - 136
13C12-123789-HxCDF	72	29 - 147
13C12-1234678-HpCDF	73	28 - 143
13C12-1234789-HpCDF	66	26 - 138
13C12-OCDF	56	17 - 157
13C12-1278-TCDD (CRS)	82	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-071-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-4.0-5.0

LLI Sample # SW 6151530
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:22 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7145 SDG#: DX011-06

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-071-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-071-SA5C-SB-4.0-5.0

LLI Sample # SW 6151530
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 14:22 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7145 SDG#: DX011-06

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	10340002	12/16/2010 09:08	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	2	10347162401A	12/14/2010 05:05	William C Schwebel	1



Analysis Report

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Page 1 of 4

Sample Description: SL-075-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-4.0-5.0

LLI Sample # SW 6151531
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:40 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7545 SDG#: DX011-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a Total Solids by 160.3	n.a.	16.2	0.50	0.50	1

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

Sample Description: SL-075-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-4.0-5.0

LLI Sample # SW 6151531
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:40 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7545 SDG#: DX011-07

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	0.0695 JBQ	0.0505	1.19	1
11031	12378-PeCDD	40321-76-4	0.152 JBQ	0.0674	5.97	1
11031	123478-HxCDD	39227-28-6	0.0601 JBQ	0.0548	5.97	1
11031	123678-HxCDD	57653-85-7	0.294 JB	0.0544	5.97	1
11031	123789-HxCDD	19408-74-3	0.387 JB	0.0542	5.97	1
11031	1234678-HpCDD	35822-46-9	0.436 JB	0.0570	5.97	1
11031	OCDD	3268-87-9	0.902 JB	0.111	11.9	1
11031	2378-TCDF	51207-31-9	0.0375 JBQ	0.0357	1.19	1
11031	12378-PeCDF	57117-41-6	0.117 JBQ	0.0344	5.97	1
11031	23478-PeCDF	57117-31-4	0.186 JBQ	0.0325	5.97	1
11031	123478-HxCDF	70648-26-9	0.148 JBQ	0.0439	5.97	1
11031	123678-HxCDF	57117-44-9	0.111 JBQ	0.0414	5.97	1
11031	123789-HxCDF	72918-21-9	0.612 JBQ	0.0476	5.97	1
11031	234678-HxCDF	60851-34-5	0.170 JB	0.0432	5.97	1
11031	1234678-HpCDF	67562-39-4	0.776 JBQ	0.0422	5.97	1
11031	1234789-HpCDF	55673-89-7	0.137 JBQ	0.0543	5.97	1
11031	OCDF	39001-02-0	0.350 JBQ	0.0792	11.9	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	73	25 - 164
13C12-12378-PeCDD	76	25 - 181
13C12-123478-HxCDD	70	32 - 141
13C12-123678-HxCDD	70	28 - 130
13C12-123789-HxCDD	70	28 - 130
13C12-1234678-HpCDD	70	23 - 140
13C12-OCDD	62	17 - 157
13C12-2378-TCDF	73	24 - 169
13C12-12378-PeCDF	74	24 - 185
13C12-23478-PeCDF	75	21 - 178
13C12-123478-HxCDF	68	26 - 152
13C12-123678-HxCDF	67	26 - 123
13C12-234678-HxCDF	67	28 - 136
13C12-123789-HxCDF	68	29 - 147
13C12-1234678-HpCDF	70	28 - 143
13C12-1234789-HpCDF	62	26 - 138
13C12-OCDF	52	17 - 157
13C12-1278-TCDD (CRS)	78	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-075-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-4.0-5.0

LLI Sample # SW 6151531
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:40 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7545 SDG#: DX011-07

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

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Page 4 of 4

Sample Description: SL-075-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-075-SA5C-SB-4.0-5.0

LLI Sample # SW 6151531
LLI Group # 1223088
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/29/2010 15:40 by PH

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

Submitted: 11/30/2010 09:10

Reported: 12/30/2010 18:28

D7545 SDG#: DX011-07

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	10340002	12/16/2010 10:05	Nelson H Risser	1
11030	Dioxins/Furans in Solids - Sox	EPA 1613B	1	10340002	12/06/2010 13:00	Ginelle L Haines	1
11625	28a Total Solids by 160.3	EPA 160.3 modified	1	10334162401A	12/01/2010 05:16	William C Schwebel	1

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

Quality Control Summary

Client Name: CDM Federal Programs Corp.
Reported: 12/30/10 at 06:28 PM

Group Number: 1223088

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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6151525, 6151529, 6151531				100		80-120		
Batch number: 10347162401A 28a Total Solids by 160.3	Sample number(s): 6151526-6151528, 6151530				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: 10340002	Sample number(s): 6151525, 6151527-6151531								
2378-TCDD	0.00867 J	0.00580	1.00	ng/kg	99		67-158		
12378-PeCDD	0.0365 J	0.00860	5.00	ng/kg	102		70-142		
123478-HxCDD	0.0217 J	0.00840	5.00	ng/kg	103		70-164		
123678-HxCDD	0.0254 J	0.00860	5.00	ng/kg	101		76-134		
123789-HxCDD	0.0228 J	0.00860	5.00	ng/kg	101		64-162		
1234678-HpCDD	0.167 J	0.0108	5.00	ng/kg	103		70-140		
OCDD	0.285 J	0.0115	10.0	ng/kg	103		78-144		
2378-TCDF	0.0155 J	0.00700	1.00	ng/kg	102		75-158		
12378-PeCDF	0.0423 J	0.00570	5.00	ng/kg	102		80-134		
23478-PeCDF	0.110 J	0.00530	5.00	ng/kg	102		68-160		
123478-HxCDF	0.0938 J	0.0104	5.00	ng/kg	102		72-134		
123678-HxCDF	0.0743 J	0.00990	5.00	ng/kg	101		84-130		
123789-HxCDF	0.0541 J	0.0115	5.00	ng/kg	100		78-130		
234678-HxCDF	0.124 J	0.0104	5.00	ng/kg	102		70-156		
1234678-HpCDF	0.453 J	0.00690	5.00	ng/kg	101		82-122		
1234789-HpCDF	0.0638 J	0.00880	5.00	ng/kg	103		78-138		
OCDF	0.272 J	0.00990	10.0	ng/kg	102		63-170		
Batch number: 10345001	Sample number(s): 6151526								
2378-TCDD	0.0176 U	0.0176	1.00	ng/kg	93		67-158		
12378-PeCDD	0.0220 U	0.0220	5.00	ng/kg	97		70-142		
123478-HxCDD	0.0308 J	0.0152	5.00	ng/kg	96		70-164		
123678-HxCDD	0.0322 J	0.0149	5.00	ng/kg	94		76-134		
123789-HxCDD	0.0318 J	0.0160	5.00	ng/kg	96		64-162		
1234678-HpCDD	0.155 J	0.0190	5.00	ng/kg	95		70-140		
OCDD	0.240 J	0.0262	10.0	ng/kg	95		78-144		
2378-TCDF	0.0161 J	0.0143	1.00	ng/kg	94		75-158		
12378-PeCDF	0.0487 J	0.0150	5.00	ng/kg	96		80-134		
23478-PeCDF	0.110 J	0.0133	5.00	ng/kg	95		68-160		
123478-HxCDF	0.107 J	0.0166	5.00	ng/kg	96		72-134		
123678-HxCDF	0.0617 J	0.0162	5.00	ng/kg	93		84-130		
123789-HxCDF	0.0771 J	0.0198	5.00	ng/kg	96		78-130		
234678-HxCDF	0.116 J	0.0166	5.00	ng/kg	95		70-156		
1234678-HpCDF	0.419 J	0.0116	5.00	ng/kg	95		82-122		
1234789-HpCDF	0.0702 J	0.0143	5.00	ng/kg	96		78-138		
OCDF	0.250 J	0.0204	10.0	ng/kg	95		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: 12/30/10 at 06:28 PM

Group Number: 1223088

Analysis Name	Blank Result	Blank EDL**	Blank MRL	Report Units	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
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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: 10334162401A 28a Total Solids by 160.3	Sample number(s): 6151525, 6151529, 6151531 BKG: P149366 4.3 4.1 4 20								
Batch number: 10347162401A 28a Total Solids by 160.3	Sample number(s): 6151526-6151528, 6151530 BKG: P154843 21.9 30.1 32* 20								
Batch number: 10345001	Sample number(s): 6151526 UNSPK: P149398								
2378-TCDD	91	91	67-158	0	25				
12378-PeCDD	97	96	70-142	0	25				
123478-HxCDD	98	99	70-164	1	25				
123678-HxCDD	96	97	76-134	0	25				
123789-HxCDD	98	96	64-162	2	25				
1234678-HpCDD	98	95	70-140	3	25				
OCDD	98	96	78-144	3	25				
2378-TCDF	93	94	75-158	1	25				
12378-PeCDF	96	96	80-134	1	25				
23478-PeCDF	96	95	68-160	1	25				
123478-HxCDF	96	96	72-134	0	25				
123678-HxCDF	96	95	84-130	1	25				
123789-HxCDF	96	95	78-130	0	25				
234678-HxCDF	95	96	70-156	0	25				
1234678-HpCDF	97	94	82-122	3	25				
1234789-HpCDF	98	98	78-138	0	25				
OCDF	97	95	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: 10340002

	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6151525	79	83	72	69	72	72
6151527	70	77	68	66	66	69
6151528	72	81	70	70	70	70
6151529	70	76	69	68	69	66
6151530	72	77	69	68	69	72
6151531	73	75	68	67	67	68
Blank	68	69	66	66	64	66
OPR	74	74	69	69	69	71
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: 12/30/10 at 06:28 PM

Group Number: 1223088

Surrogate Quality Control

	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF	13C12-1278-TCDD (CRS)	13C12-12378-PeCDD	13C12-123478-HxCDD
6151525	73	69	58	82	87	76
6151527	69	63	54	76	79	72
6151528	74	65	55	81	83	76
6151529	73	66	58	75	79	74
6151530	73	66	56	82	81	74
6151531	70	62	52	78	76	70
Blank	67	61	54	75	72	72
OPR	75	65	57	79	79	76
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
6151525	73	76	76	65	76	82
6151527	68	69	69	59	69	76
6151528	71	72	73	63	74	81
6151529	69	71	74	64	71	75
6151530	71	72	74	64	71	77
6151531	70	70	70	62	73	74
Blank	67	67	68	60	67	69
OPR	72	74	75	71	70	76
Limits:	28-130	28-130	23-140	17-157	24-169	24-185
Analysis Name: 10a Dioxin/Furan by EPA 1613B						
Batch number: 10345001						
	13C12-2378-TCDD	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF	13C12-234678-HxCDF	13C12-123789-HxCDF
6151526	75	78	69	67	68	71
Blank	59	75	72	71	70	65
MS	69	73	68	66	67	70
MSD	59	64	60	59	60	62
OPR	58	68	64	64	65	66
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
6151526	68	64	55	78	80	72
Blank	75	66	56	69	76	75
MS	67	57	45	74	74	72
MSD	61	56	49	65	66	63
OPR	71	65	56	62	70	68
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
6151526	69	70	69	61	76	76
Blank	71	70	73	63	60	72
MS	67	69	66	57	70	73
MSD	59	62	62	56	59	62

*- Outside of specification

** - This limit was used in 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: 12/30/10 at 06:28 PM

Group Number: 1223088

Surrogate Quality Control

OPR	66	68	71	64	58	68
Limits:	28-130	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.

CDM						SSFL AREA IV COLLOCATED SOIL SAMPLING																				CHAIN OF CUSTODY RECORD					
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						VOCs/EPA 8260B	1,4-Dioxane EPA 8260SIM	SVOCs EPA 8270C & PAHs 8270 SIM	TPH-GRO EPA 8015B	TPH-EFH EPA 8015B Mod.	*Metals EPA 6010/60208&7471A	*Hex Chrome EPA 7199*	*Fluoride EPA 300.0	*PCBs EPA 8082	*Dioxin/Furan EPA 1613B	*Perchlorate EPA 314.0	Perchlorate Confirmation by EPA 6850	*Pesticides EPA 8081A (surface soil only)	*Herbicides EPA 8151 (surface soil only)	**Nitrates EPA 300.0	**Formaldehyde EPA 8315A	**Hydrazine EPA 8315A	**n-NDMA EPA 1625C	**Energetics EPA 8930A	**Cyanide EPA 9012B	**pH EPA 9045C	**Alcohols EPA 8015B	**Glycols EPA 8015B	**Terphenyls EPA 8015B	Other Instructions and Notes	
Sample Number						DATE	TIME	MATRIX	Preservative	Type & No. of Containers																					
SL-058-SA5C-SB-3.5						11.29.10	0940	soil	none	4 encore samplers	X	X																			
SL-059-SA5C-SB-1.5						11.29.10	1107	soil	none	5 encore samplers	X	X	X																		Sample has staining
SL-059-SA5C-SB-9.5						11.29.10	1113	soil	none	5 encore samplers	X	X	X																		
TB-112910						11.29.10	1515	water	HCl	4-40 ml vials	X	X	X																		Trip Blank
SL-058-SA5C-SB-3.0-4.0						11.29.10	0945	soil	none	2 - 16 oz. jars			X		X	X	X	X	X	X	X										
SL-059-SA5C-SB-9.0-10.0						11.29.10	1115	soil	none	2 - 16 oz. jars			X		X	X	X	X	X	X											
SL-059-SA5C-SB-9.0-10.0						11.29.10	1115	soil	none	1 - 16 oz. jar										X	X		X	X	X			X			
SL-059-SA5C-SB-9.0-10.0						11.29.10	1115	soil	none	3 - 4 oz. jars				X													X	X			
SL-059-SA5C-SB-9.0-10.0						11.29.10	1115	soil	none	1 - 4 oz. amber jar											X										
SL-059-SA5C-SB-1.0-2.0						11.29.10	1110	soil	none	2 - 16 oz. jars			X		X	X	X	X	X												Sample has staining
SL-059-SA5C-SB-1.0-2.0						11.29.10	1110	soil	none	1 - 16 oz. jar										X	X		X	X	X			X			Sample has staining
SL-059-SA5C-SB-1.0-2.0						11.29.10	1110	soil	none	3 - 4 oz. jars				X													X	X			Sample has staining
SL-059-SA5C-SB-1.0-2.0						11.29.10	1110	soil	none	1 - 4 oz. amber jar											X										Sample has staining
SL-075-SA5C-SB-4.5						11.29.10	1537	soil	none	4 encore samplers	X	X																			
SL-071-SA5C-SB-9.5						11.29.10	1425	soil	none	5 encore samplers	X	X	X																		
SL-071-SA5C-SB-4.5						11.29.10	1418	soil	none	5 encore samplers	X	X	X																		
Relinquished by: (Signature) <i>Shelly Samantoni</i>						Date/Time 11.29.10 1630		Received for Laboratory by: (Signature) <i>[Signature]</i>				Date/Time <i>[Signature]</i>		Laboratory: Lancaster Laboratories, Inc.																	

6151525-31

CDM	SSFL AREA IV COLLOCATED SOIL SAMPLING
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*Primary Analyses as indicated on sample labels
 **Secondary Analyses as indicated on sample labels
 @ For hex chrome analysis, lab will measure pH and ORP

Pamela Hutterer-Gelley Samaritani

[illegible]

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.

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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

January 28, 2011

Project: SSFL Area IV Collocated Soil Sampling

Submittal Date: 12/01/2010

Group Number: 1223255

SDG: DX011

PO Number: 1203-004-007-AL

Release Number: TRACKING #11667

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
SL-057-SA5C-SB-4.0-5.0 Soil	6152669
SL-057-SA5C-SB-7.0-8.0 Soil	6152670
SL-074-SA5C-SB-4.0-5.0 Soil	6152671
SL-074-SA5C-SB-8.0-9.0 Soil	6152672
SL-070-SA5C-SB-4.0-5.0 Soil	6152673
SL-070-SA5C-SB-9.0-10.0 Soil	6152674
SL-043-SA5C-SB-2.0-3.0 Soil	6152675
EB11-SA5C-113010 Water	6152676

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,



Charles J. Neslund
Manager



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-057-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SB-4.0-5.0

LLI Sample # SW 6152669
LLI Group # 1223255
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/30/2010 09:33 by PH

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

Submitted: 12/01/2010 09:20

Reported: 01/28/2011 16:51

D5745 SDG#: DX011-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry						
11625	28a 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-057-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SB-4.0-5.0

LLI Sample # SW 6152669
LLI Group # 1223255
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Project Name: SSFL Area IV Collocated Soil Sampling

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

Submitted: 12/01/2010 09:20

Reported: 01/28/2011 16:51

D5745 SDG#: DX011-08

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	0.00367 U	0.00367	0.557	1
11031	12378-PeCDD	40321-76-4	0.00445 U	0.00445	2.78	1
11031	123478-HxCDD	39227-28-6	0.0144 JBQ	0.00657	2.78	1
11031	123678-HxCDD	57653-85-7	0.0684 JBQ	0.00679	2.78	1
11031	123789-HxCDD	19408-74-3	0.0896 JB	0.00657	2.78	1
11031	1234678-HpCDD	35822-46-9	1.17 JB	0.00646	2.78	1
11031	OCDD	3268-87-9	5.01 JB	0.00802	5.57	1
11031	2378-TCDF	51207-31-9	0.00390 U	0.00390	0.557	1
11031	12378-PeCDF	57117-41-6	0.0196 JBQ	0.00323	2.78	1
11031	23478-PeCDF	57117-31-4	0.0496 JB	0.00290	2.78	1
11031	123478-HxCDF	70648-26-9	0.0497 JBQ	0.00568	2.78	1
11031	123678-HxCDF	57117-44-9	0.0430 JBQ	0.00546	2.78	1
11031	123789-HxCDF	72918-21-9	0.101 JBQ	0.00601	2.78	1
11031	234678-HxCDF	60851-34-5	0.0771 JB	0.00557	2.78	1
11031	1234678-HpCDF	67562-39-4	0.323 JB	0.00334	2.78	1
11031	1234789-HpCDF	55673-89-7	0.0353 JBQ	0.00401	2.78	1
11031	OCDF	39001-02-0	0.171 JB	0.00457	5.57	1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	61	25 - 164
13C12-12378-PeCDD	73	25 - 181
13C12-123478-HxCDD	68	32 - 141
13C12-123678-HxCDD	66	28 - 130
13C12-123789-HxCDD	67	28 - 130
13C12-1234678-HpCDD	67	23 - 140
13C12-OCDD	60	17 - 157
13C12-2378-TCDF	61	24 - 169
13C12-12378-PeCDF	70	24 - 185
13C12-23478-PeCDF	71	21 - 178
13C12-123478-HxCDF	63	26 - 152
13C12-123678-HxCDF	62	26 - 123
13C12-234678-HxCDF	64	28 - 136
13C12-123789-HxCDF	64	29 - 147
13C12-1234678-HpCDF	67	28 - 143
13C12-1234789-HpCDF	61	26 - 138
13C12-OCDF	53	17 - 157
13C12-1278-TCDD (CRS)	72	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-057-SA5C-SB-4.0-5.0 Soil
SSFL Area IV Collocated Soil Sampling
SL-057-SA5C-SB-4.0-5.0

LLI Sample # SW 6152669
LLI Group # 1223255
Account # 13013

Project Name: SSFL Area IV Collocated Soil Sampling

Collected: 11/30/2010 09:33 by PH

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

Submitted: 12/01/2010 09:20

Reported: 01/28/2011 16:51

D5745 SDG#: DX011-08

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